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OM protein - protein search, using sw model

Run on: March 10, 2003, 18:27:41 ; Search time 21 Seconds
(without alignments)
1094.416 Million cell updates/sec

Title: US-09-926-799-1

Perfect score: 2896

Sequence: 1 MMASKDAPTNMDGTSGAGQ.....YQLKPVGTAGPACRLGIRRS 545

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 188354 seqs, 42170167 residues

Total number of hits satisfying chosen parameters: 188354

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published_Applications_AA:*

- 1: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB pep.*
- 2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB pep.*
- 3: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB pep.*
- 4: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB pep.*
- 5: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB pep.*
- 6: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB pep.*
- 7: /cgn2_6/ptodata/1/pubpaa/PCTUS_PUBCOMB pep.*
- 8: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB pep.*
- 9: /cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB pep.*
- 10: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB pep.*
- 11: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB pep.*
- 12: /cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB pep.*
- 13: /cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB pep.*
- 14: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	106	3.7	1302	12 US-10-000-864-2	Sequence 2, Appli
2	106	3.7	1493	10 US-09-858-754-3	Sequence 3, Appli
3	106	3.7	1493	12 US-10-000-864-8	Sequence 8, Appli
4	103.5	3.6	1170	12 US-10-135-687-2	Sequence 2, Appli
5	103.5	3.6	1210	10 US-09-860-352A-2	Sequence 2, Appli
6	100.5	3.5	1070	10 US-09-735-367B-6	Sequence 6, Appli
7	100	3.5	828	9 US-09-738-626-5038	Sequence 5038, Ap
8	100	3.5	1601	10 US-09-862-027-40	Sequence 40, Appli
9	100	3.5	2005	10 US-09-735-367B-3	Sequence 3, Appli
10	100	3.5	2063	10 US-09-735-367B-2	Sequence 2, Appli
11	98	3.4	1209	12 US-10-135-687-4	Sequence 4, Appli
12	98	3.4	1493	10 US-09-858-754-4	Sequence 63, Appli
13	97	3.3	956	9 US-10-121-032-63	Sequence 63, Appli
14	96	3.3	1344	9 US-09-738-626-6888	Sequence 6888, Ap
15	95.5	3.3	678	9 US-09-712-363-158	Sequence 158, App
16	95	3.3	504	9 US-09-738-626-3680	Sequence 3680, Ap
17	94.5	3.3	662	10 US-09-924-358-11	Sequence 11, Appli
18	94	3.2	1477	9 US-10-092-880-4	Sequence 4, Appli
19	93.5	3.2	498	10 US-09-925-297-673	Sequence 673, App

ALIGNMENTS

RESULT 1

US-10-000-864-2

; Sequence 2, Application US/10000864

; Patent No. US20020146798A1

; GENERAL INFORMATION:

; APPLICANT: CADUS PHARMACEUTICAL CORPORATION

; TITLE OF INVENTION: HUMAN MEK PROTEIN AND NUCLEIC ACID MOLECULES

; FILE REFERENCE: CPI-085CPC

; CURRENT APPLICATION NUMBER: US/10/000,864

; CURRENT FILING DATE: 2001-10-31

; EARLIER APPLICATION NUMBER: 09/423,890

; EARLIER FILING DATE: 2000-06-03

; EARLIER APPLICATION NUMBER: PCT/US99/05556

; EARLIER FILING DATE: 1999-03-15

; EARLIER APPLICATION NUMBER: USSN 60/078,153

; EARLIER FILING DATE: 1998-03-16

; EARLIER APPLICATION NUMBER: USSN 60/099,165

; EARLIER FILING DATE: 1998-09-04

; NUMBER OF SEQ ID NOS: 38

; SOFTWARE: Patent In Ver. 2.0

; SEQ ID NO 2

; LENGTH: 1302

; TYPE: PRT

; ORGANISM: Homo sapiens

US-10-000-864-2

Query Match

Best Local Similarity 3.7%; Score 106; DB 12; Length 1302;

Matches 83; Conservative 72; Mismatches 165; Indels 124; Gaps 20;

QY	1	MMASKDAPTNMDGTSGAGOLVPEANTAPISMEPVAG-AATAAATAGVNMIDPIMNN	59
DB	400	LILANGESTGNSGGSG-GSL--SAGAAAGSSQSPISGDVVEACCSVLSIVCADDP-VYKV	455
QY	60	YVQA---PQGEETISFNPTPGD-ILEFDLQLGPHLNPF-----SHLAQMY	100
DB	456	YVAALKTLRMLVYTTCHSLAERIKLQRLRPVVDITLVKCADANSRTSOLSTVLELC	515
QY	101	NCWVGNNKV--KVLLAGNAFTAG-KIIISCIPPGFAQN-----ISIAQA	142
DB	516	NGOAGKLAVGREILKAGSIGVGVDYVLSILGNQAESNNMQBELGLRLCLIDRLLEFFPA	575

QY	143	TMFPHVIA-DVRVLEPIEVLDPVRLV---FHNDNAPT--RLVCMLYTPLRASGSS	196
Db	576	EFYPHIVSTVSOAEPVEIRYKLLSLTALQSIDNSHSMVGKLSRIY-----	625
QY	197	GTDPFVIAGRVLTCPSPDFSLFLVPPNVEQKTKPFSVPNLPLNTLSNSRVPSLIKSMV	256
Db	626	-----LSSARMTAVPAVFSKLVMT-----LNASGSTHFTMRRLMA	663
QY	257	SRDHCQMVQ-FQNG-RVTLDG---OLQGTTPTSASQLCKIRGSVFHANGNGYNLTELD-	310
Db	664	IADEVEIAEVIQLGVEDTVGHQDSLQALAPASCLNSSLEHTVHREKTGKLSATRLSA	723
QY	311	-----GSPYHAFESPAPIGFPDLGECDDWHMEAS	338
Db	724	SSDISDRLAGVSVGLPSSTTTTEQPKPAVQTKGRPHSQCLNSSPLSHAQL-----	968
QY	339	PTTQFNTGDVVIKQINVKQESAFAP	362
Db	778	PSAPCSSAPSPDIDSKHRPQAFVP	801
RESULT 2			
US-09-858-754-3			
; Sequence 3, Application US/09858754			
; Patent No. US20020055130A1			
; GENERAL INFORMATION:			
; APPLICANT: Johnson, Gary L.			
; TITLE OF INVENTION: METHOD AND PRODUCT FOR REGULATING APOPTOSIS			
; FILE REFERENCE: CPI-042			
; CURRENT APPLICATION NUMBER: US/09/858,754			
; PRIOR FILING DATE: 2001-05-16			
; PRIOR APPLICATION NUMBER: 09/023,130			
; PRIOR FILING DATE: 1998-02-13			
; PRIOR APPLICATION NUMBER: 60/039,740			
; PRIOR FILING DATE: 1997-02-14			
; NUMBER OF SEQ ID NOS: 13			
; SOFTWARE: PatentIn Ver. 2.0			
; SEQ ID NO 3			
; LENGTH: 1493			
; TYPE: PRT			
; ORGANISM: Homo sapiens			
US-09-858-754-3			
Query Match 3.7%; Score 106; DB 10; Length 1493;			
Best Local Similarity 18.7%; Pred No. 1.5;			
Matches 83; Conservative 72; Mismatches 165; Indels 124; Gaps 20;			
QY	1	MMASKDAPTNMDGTSGAGQLVPEANTAEPISEMPVAG-AATAAATAGOVNMDPWI	59
Db	591	LLLANGESTNGSGGSG-GSL--SAGAASGSSQPSISGDVVEACCSVLSIVCADP-VYKV	646
QY	60	YVQA---PQGEFTISPNTPGD-ILFDLQGLPHLNPFL-----SHLAQMY	100
Db	647	YVAALKTLRAMLVYTPCHSLAEIRKIQRLRPVVDITLVKCADANSRTSLSISTVLELC	706
QY	101	NGWGNMKV--KVLGNAGNFTAG-KIISCIPTPGFAAQN-----ISIAQA	142
Db	707	KQAGELAVGREILKAGSIGVGVVYVLSCLIGNQAESNNMQELLGRCLLDRLLEFFA	766
QY	143	TMFPHVIA-DVRVLEPIEVLDPVRLV---FHNDNAPT--RLVCMLYTPLRASGSS	196
Db	767	EFYPHIVSTVSOAEPVEIRYKLLSLTALQSIDNSHSMVGKLSRIY-----	816
QY	197	GTDPFVIAGRVLTCPSPDFSLFLVPPNVEQKTKPFSVPNLPLNTLSNSRVPSLIKSMV	256
Db	817	-----LSSARMTAVPAVFSKLVMT-----LNASGSTHFTMRRLMA	854
QY	257	SRDHCQMVQ-FQNG-RVTLDG---OLQGTTPTSASQLCKIRGSVFHANGNGYNLTELD-	310
Db	855	IADEVEIAEVIQLGVEDTVGHQDSLQALAPASCLNSSLEHTVHREKTGKLSATRLSA	914
QY	311	-----GSPYHAFESPAPIGFPDLGECDDWHMEAS	338
Db	915	SSDISDRLAGVSVGLPSSTTTTEQPKPAVQTKGRPHSQCLNSSPLSHAQL-----	968
QY	339	PTTQFNTGDVVIKQINVKQESAFAP	362
Db	969	PSAPCSSAPSPDIDSKHRPQAFVP	992
RESULT 4			

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US-10-135-687-2
; Sequence 2, Application US/10135687
; Patent No. US20020123120A1
; GENERAL INFORMATION:
; APPLICANT: CHANDRAMOULISWARAN, Ishwar et al.
; TITLE OF INVENTION: ISOLATED HUMAN KINASE PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, AND USES
; FILE REFERENCE: CL001068DIV
; CURRENT APPLICATION NUMBER: US/10/135,687
; PRIOR FILING DATE: 2002-05-01
; PRIOR APPLICATION NUMBER: 09/749,588
; PRIOR FILING DATE: 2000-12-28
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 1170
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-135-687-2

Query Match      3.6%; Score 103.5; DB 12; Length 1170;
Best Local Similarity 20.9%; Pred. No. 1.8; Indels 145; Gaps 33;
Matches 119; Conservative 65; Mismatches 241;

QY 9 PTNMDGTSGAGOLVPEANTAEPISEMPVAGAAT-AAATAGOVNMIDPWIMNNYVQAPQGE 67
Db 633 PVRMD---NAVPIVQAPAAQPLQIQ--SGVLTGSGCTPLMVATLHPQVA-----677
QY 68 FTISPNNTPGDILFDLQGLPHLNPFLSLAQMNGWGVNKKVLLAGNAFTAGKIIISC 127
Db 678 -TITPOYA---VPFTLSAAGRPAALVEQTAALVQAWPGGTQ-QILLPS---TWQOL-----725
QY 128 IPGFAAQNISIAQATMFHVIADRVLEPIEVLVDVFNHNDNAPTMLVCMLYT 187
Db 726 --PGVALHN-SVQPTAMIPAMGSGQ-----QLADWRNAHSHGNQYSTIMOQPSLLTN 775
QY 188 -----PLRAS-----GSSSGTDPFVIAGRV--LTCPS 213
Db 776 HVTLATAQPLNVGVAHVVRQQSSSLPSKKNKQSAVPSSKSSLD--VLPQVYSLVGSSP 833
QY 214 ---DFSEFLVPPNVEQKTKPFSVPLNPLNTLS-----NSRVPSLIKSMVVS 257
Db 834 LRTTSSYNSLVP--VQDQHQPILIPDTPSPVSVITIRSDTDEEDNKYKPS--SSGLKP 889
QY 258 RDHGQWQFQNGRVTLDGLOGTTPTSASOLCKIRGSVFHANGN---GYNLTELDCSPY 314
Db 890 RSN--VISYVTYVNDSPDSSLSSTYDLSALRG-----NSGSVLEGPGRVVDGTGT 942
QY 315 HAFESPAPIGFDPDLGECDMHMEASPTTQFNTGDVVIKQINVKQESAFAPHLGTIQADGLS- 373
Db 943 RTIIVP-PLK-TQLGDCVTATQASGLLSNKTTPVSVSGSSGCCITPTGYRAQRGTS 1000
QY 374 ----DVSNTNMIAKLGWSPVSDGHRGDVDPWIPRYGSTLTLEAAQLAPPIYPGFG 429
Db 1001 AQLNLNSQOQSSA-----APTQERSNNPAP-----RRQAFVAP-----LSQA 1040
QY 430 IVFEMSDPTAHGTNG---LSVPCTIQEFVTHFVNEQAPTRGEA-----ALLHYLDPD- 480
Db 1041 PYTFQHGSP-LHSTGHPLAPAPAHLPSPQ--AHLYTYAAPTSAALGSTSSIAHLFSPQ 1097
QY 481 THNLGFEKLYPEGFMTCPVNSSGTGPGQTL 510
Db 1098 SSRHAAAYTHPSTLVHQVPVS--VGPSLL 1125

RESULT 5
US-09-860-352A-2
; Sequence 2, Application US/09860352A
; Patent No. US20020132785A1
; GENERAL INFORMATION:
; APPLICANT: Millennium Pharmaceuticals, Inc.
; APPLICANT: Curtis, Rofy

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; APPLICANT: Welch, Nadine
; TITLE OF INVENTION: 13305 NOVEL PROTEIN KINASE MOLECULES AND
; FILE REFERENCE: 38155-20016.00
; CURRENT APPLICATION NUMBER: US/09/860,352A
; PRIOR FILING DATE: 2001-05-17
; PRIOR APPLICATION NUMBER: US 60/205,301
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 1210
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-860-352A-2

Query Match      3.6%; Score 103.5; DB 10; Length 1210;
Best Local Similarity 20.9%; Pred. No. 1.9;
Matches 119; Conservative 65; Mismatches 241; Indels 145; Gaps 33;

QY 9 PTNMDGTSGAGOLVPEANTAEPISEMPVAGAAT-AAATAGOVNMIDPWIMNNYVQAPQGE 67
Db 673 PVRMD---NAVPIVQAPAAQPLQIQ--SGVLTGSGCTPLMVATLHPQVA-----717
QY 68 FTISPNNTPGDILFDLQGLPHLNPFLSLAQMNGWGVNKKVLLAGNAFTAGKIIISC 127
Db 718 -TITPOYA---VPFTLSAAGRPAALVEQTAALVQAWPGGTQ-QILLPS---TWQOL-----765
QY 128 IPGFAAQNISIAQATMFHVIADRVLEPIEVLVDVFNHNDNAPTMLVCMLYT 187
Db 766 --PGVALHN-SVQPTAMIPAMGSGQ-----QLADWRNAHSHGNQYSTIMOQPSLLTN 815
QY 188 -----PLRAS-----GSSSGTDPFVIAGRV--LTCPS 213
Db 816 HVTLATAQPLNVGVAHVVRQQSSSLPSKKNKQSAVPSSKSSLD--VLPQVYSLVGSSP 873
QY 214 ---DFSEFLVPPNVEQKTKPFSVPLNPLNTLS-----NSRVPSLIKSMVVS 257
Db 874 LRTTSSYNSLVP--VQDQHQPILIPDTPSPVSVITIRSDTDEEDNKYKPS--SSGLKP 929
QY 258 RDHGQWQFQNGRVTLDGLOGTTPTSASOLCKIRGSVFHANGN---GYNLTELDCSPY 314
Db 930 RSN--VISYVTYVNDSPDSSLSSTYDLSALRG-----NSGSVLEGPGRVVDGTGT 982
QY 315 HAFESPAPIGFDPDLGECDMHMEASPTTQFNTGDVVIKQINVKQESAFAPHLGTIQADGLS- 373
Db 983 RTIIVP-PLK-TQLGDCVTATQASGLLSNKTTPVSVSGSSGCCITPTGYRAQRGTS 1040
QY 374 ----DVSNTNMIAKLGWSPVSDGHRGDVDPWIPRYGSTLTLEAAQLAPPIYPGFG 429
Db 1041 AQLNLNSQOQSSA-----APTQERSNNPAP-----RRQAFVAP-----LSQA 1080
QY 430 IVFEMSDPTAHGTNG---LSVPCTIQEFVTHFVNEQAPTRGEA-----ALLHYLDPD- 480
Db 1081 PYTFQHGSP-LHSTGHPLAPAPAHLPSPQ--AHLYTYAAPTSAALGSTSSIAHLFSPQ 1137
QY 481 THNLGFEKLYPEGFMTCPVNSSGTGPGQTL 510
Db 1138 SSRHAAAYTHPSTLVHQVPVS--VGPSLL 1165

RESULT 6
US-09-735-367B-6
; Sequence 6, Application US/09735367B
; Patent No. US20020151477A1
; GENERAL INFORMATION:
; APPLICANT: Gustafsson, Jan-Ake
; APPLICANT: Cairra, Francoise
; APPLICANT: Antonsson, Per
; TITLE OF INVENTION: NUCLEAR RECEPTOR COACTIVATOR
; FILE REFERENCE: 102093-100
; CURRENT APPLICATION NUMBER: US/09/735,367B
; CURRENT FILING DATE: 2000-12-12

```

1 APPLICANT: NAKAGAWA, SATOSHI
2 APPLICANT: MIZOGUCHI, HIROSHI
3 APPLICANT: ANDO, SEIKO
4 APPLICANT: HAYASHI, MIKIRO
5 APPLICANT: OCHIAI, KEIKO
6 APPLICANT: YOKOI, HARUHIKO
7 APPLICANT: TATEISHI, NAAKO
8 APPLICANT: SENOH, AKIHIRO
9 APPLICANT: IKEDA, MASATO
10 APPLICANT: OZAKI, AKIO
11 TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
12
13 CURRENT APPLICATION NUMBER: 249-125
14
15 FILE REFERENCE: US/09/738,626

Query Match
3.58; Score 100; DB 10; Length 1601;

QY	172	NNDNAPTRLVLCMLYTPLRASGSSGTDPPVIAGRVLTCPSPDSEFLFLVPPNVEO-KTK	230
Db	620		661
QY	231	PFSVPNLPLNTLSNRV---PSLIKSMVSRDHGQMVQFONGRVTLDGQL---QGTTPPTS	284
Db	662		718
QY	285	ASOLCKIRGSVFHANGNGYNLTELDCSPYHAFESPAPIGFPLDGCDDNHM---EASPTT	341
Db	719	PSQVMGLOQVLRPPG-----PSP-----HMAQQHGDPA	748
QY	342	QFNT---GDVIKOINVKQESAFAPHLGTIQADGLS-----	373
Db	749	TANNVSLSQMPDVSIIQOTNMVPPHVQAMQGSNASHFSGHGMFSNAPFSCAPNGNQ	808
QY	374	-----DYSVNTNMIKLGWSPVSDCHRGDVPDWIPTRGVSTLTEAQL-----	417
Db	809	SCQNPGFPYVKDVTLSPLLVNL-LQSDISAGHFG-----VNNKQNTNANKPKKKPP	862
QY	418	-----APPYIPGFGAIVFMSDFPIAHGTNGLSVPCTIPIQ	454
Db	863	RKKNSOODLNTPTDRAGLEEA-----DQPLPGEQGLSDNSGPK	904
RESULT 10			
US-09-735-367B-2			
; Sequence 2, Application US/09735367B			
; Patent No. US20020151477A1			
; GENERAL INFORMATION:			
; APPLICANT: Gustafsson, Jan-Ake			
; APPLICANT: Cairra, Francoise			
; APPLICANT: Antonsson, Per			
; TITLE OF INVENTION: NUCLEAR RECEPTOR COACTIVATOR			
; FILE REFERENCE: 102093-100			
; CURRENT APPLICATION NUMBER: US/09/735,367B			
; CURRENT FILING DATE: 2000-12-12			
; PRIOR APPLICATION NUMBER: US 60/174,544			
; PRIOR FILING DATE: 2000-01-05			
; NUMBER OF SEQ ID NOS: 18			
; SOFTWARE: FastSeq for Windows Version 4.0			
; SEQ ID NO 2			
; LENGTH: 2063			
; TYPE: PRT			
; ORGANISM: Human			
US-09-735-367B-2			
Query Match 3.5%; Score 100; DB 10; Length 2063;			
Best Local Similarity 18.6%; Pred. No. 8.4;			
Matches 98; Conservative 53; Mismatches 183; Indels 194; Gaps			
QY	14	GTSGAGOLVPEANTAEPISEMPVAGATAATAAGV-----NMIDPWI-----MNNY	60
Db	542	GNSCAPOLQANQVH-----AGGAGAGPPQNMQVSHGPPNMMQPSLMGIRGNMNQ	594
QY	61	VQAPQGETTSPNTPGDILFLQLGP-----HLNPFSLHAQMYNGWGNMKVKV	111
Db	595	QAGTSGVPQVNLNMQG-----QVQGGPPSLQCMHOOIIPVSCQMVOQ-OCTLNQNP	649
QY	112	LLAGNAFTAGKIIISCIPPPGAAONTISAQATMPEHVIADVRLPEIEVPLEDRVNLFI	171
Db	650	LSRAQLMPOGOMVNV--PR---SQNLGSPQRM-----	677
QY	172	NNDNAPTRLVLCMLYTPLRASGSSGTDPPVIAGRVLTCPSPDSEFLFLVPPNVEO-KTK	230
Db	678		719
QY	231	PFSVPNLPLNTLSNRV---PSLIKSMVSRDHGQMVQFONGRVTLDGQL---QGTTPTS	284
Db	720	OMQGNKQOFTNQOSNVMPGPAQIMRGPTTNMOCNMVQFTG-----QMSGQMLP	776
QY	285	ASOLCKIRGSVFHANGNGYNLTELDCSPYHAFESPAPIGFPLDGCDDNHM---EASPTT	341

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Db 777 PSQVNGIQGVLRPG-----PSB-----HMAQQHGDPAT 806
Qy 342 QFNT-----GDVIKQINVKQESAFAPHLGTIQADGLS----- 373
Db 807 TANNDVLSOMMPDVSIQOTNNVPHVQMGNSAGNSHFCHGMSFNAPFSGAPNGNQ 866
Qy 374 -----DVSNTNMIKLGWSPVSDGHRGDVDPWIPRYGSTLTLEAAQL----- 417
Db 867 SCGQNGPFVKNKDTLTPSLLVNL-LQSDISAGHFG-----VNNKQNTNANKPKKKPP 920
Qy 418 -----APTIYPGFGAEVFFMSDFPIAHGTNGLSVPCITPQ 454
Db 921 RKKKSQQLDNTDTPRPAGLEA-----DQPLPGEQGISLDNSGPK 962

RESULT 11
US-10-135-687-4
; Sequence 4, Application US/10135687
; Patent No. US20020123120A1
; GENERAL INFORMATION:
; APPLICANT: CHANDRAMOULISWARAN, Ishwar et al.
; TITLE OF INVENTION: ISOLATED HUMAN KINASE PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, AND USES
; FILE REFERENCE: CL001068DIV
; CURRENT APPLICATION NUMBER: US/10/135,687
; CURRENT FILING DATE: 2002-05-01
; PRIOR APPLICATION NUMBER: 09/749,588
; PRIOR FILING DATE: 2000-12-28
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 4
; LENGTH: 1209
; TYPE: PRT
; ORGANISM: Mus musculus
US-10-135-687-4

Query Match 3.4%; Score 98; DB 12; Length 1209;
Best Local Similarity 20.9%; Pred. No. 5.7;
Matches 119; Conservative 67; Mismatches 239; Indels 144; Gaps 32;

Qy 9 PTNMDGTSGAGOLVPEANTAEPISEPVAGAAAT-AAATAGQVNMIDPWIMNNYVQAPQ-- 65
Db 673 PYRMD---NAVPIVTPQAPAAQLQIQ--SGVLTQSGCTPLMATLHPQVA---TITPQYA 724
Qy 66 GFTTSPNNTPGDILFDLQLGPLNPLFSLHQAQMYNGWGNMKVKVLLAGNAFTAGKII 125
Db 725 VFPTLSCAGRPA-----LVEQTAAVLQAWPGGTQ-QILLP-----SAWQQL- 764
Qy 126 SCIPPGFAAQNISIAQATMPFHVIADVRLPIEVPLEDVRNVLFHNNNDNAPTMRVLCML 185
Db 765 ----PGVALHN-SVQPAAVIPEAMGSSQ-----QLADWRNAHSHGNGYSTIMQPSLL 812
Qy 186 YT-----PL-----RAGSSS-----GTDPEVIAGRVLTCPSPDFSL----- 218
Db 813 TNHVTLATAQPLNVGAHVVRQOQSSLSPKKNKOSAPVSSKSSLEVLPQSQYISLVGSSP 872
Qy 219 -----FLVPPNVBQTKPFVSNPLPLNTLS-----NSRVPSLIKSMVVS 257
Db 873 LRTTSSYNLVP--VQDQHQPIIIPDTPPPVSVITIRSDTDEEDNKYEPN--SSSLKA 928
Qy 258 RDHGQWQFONGRVTLDGLOQTTPTSASOLCKIRGSVFHANGNGYNLTLDGSPYHAF 317
Db 929 RSN--VISYVTWNDSPDSSLSSPHSTDTLSALR-----GNSGTLLEGPRGAADG 978
Qy 318 ESPAPIGFP-----DLGECDDHMEASPTTQFNTGCDVLIKQINVKQESAFAPHLGTIQADGLS 373
Db 979 ICTRTTIVPLPLTQLGDCTVATQASGLLSKTKPVAHSVSGQSSGCCITPTGYRAORGGAS 1038
Qy 374 DV---SVNTNMIKLGWSPVSDGHRGDVDPWIPRYGSTLTLEAAQLAPPYPPGFGAEI 430
Db 1039 AVQPLNLSQNOQS-----SSASTSQERSNPN--APR-----RQAFVAP-----LSQAP 1080
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Qy 431 VFFMSDFPIAHGNG---LSVPCTIPQEFVTHFVNEQAPTRGEA-----ALLHYLDPD-T 481
Db 1081 YAFQHGSP-L-HSTGHPLAPAPHLPSQ--PHLYTYAAPTSAALGSTSSIAHLFFPQGS 1137
Qy 482 HRNIGEFKLYPEGEMTCVPNNSSGTGPTQL 510
Db 1138 SRHAAAVTTHPSTLVHQVPVS--VGPSLL 1164

RESULT 12
US-09-858-754-4
; Sequence 4, Application US/09858754
; Patent No. US20020055130A1
; GENERAL INFORMATION:
; APPLICANT: Johnson, Gary L.
; TITLE OF INVENTION: METHOD AND PRODUCT FOR REGULATING APOPTOSIS
; FILE REFERENCE: CFI-042
; CURRENT APPLICATION NUMBER: US/09/858,754
; CURRENT FILING DATE: 2001-05-16
; PRIOR APPLICATION NUMBER: 09/023,130
; PRIOR FILING DATE: 1998-02-13
; PRIOR APPLICATION NUMBER: 60/039,740
; PRIOR FILING DATE: 1997-02-14
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
; LENGTH: 1493
; TYPE: PRT
; ORGANISM: Rattus norvegicus
US-09-858-754-4

Query Match 3.4%; Score 98; DB 10; Length 1493;
Best Local Similarity 18.2%; Pred. No. 7.8;
Matches 83; Conservative 58; Mismatches 129; Indels 186; Gaps 22;

Qy 93 LSHLAQMYNGWGNMKV--KVLLAGNAFTAG-KIISCIPPGFAAQN----- 136
Db 694 ISTLELCQGAGELAVGREILKAGSIGVGVDYLVSLCILGNQAESENMMQELLGRCLID 753
Qy 137 --ISIAQATMPFHVIA-DVRYLEPIEVPLEDVRNVL---FHNNDNAPTMM--RLVCMLYTP 188
Db 754 RLLLEISAEFYPHIVSTDVYSAEPVEIRYKKLLSLLAFALQSIDSNSHSMVGKLSRRYI-- 811
Qy 189 LRAGSSSGTDPFVIAGRVLTCPSPDFSLFLVPPNVBQTKPFVSNPLNTLSNRVP 248
Db 812 -----LSSARMVTVPPLFSKLVTM-----LSASGSSHFA 841
Qy 249 SLIKSMVYSROH---GOMVQFQNGRVTLTDGO---LOGTTPTSASOLCKIRGSVFHANGN 302
Db 842 RMRRRLMAIADEVEAETAEVIQL-GSEDTLDGQDSSQALAPPYPPESSLEHTAHVEKTK 900
Qy 303 GYNTELDGSPYHAPESPA--PIGFPDLGECDDHMEASPTTQFNTGVDVIKQINVKQESAF 360
Db 901 GLKATRLSASSEDISDRLAGVSVGLP-----SSATTE----- 932
Qy 361 APHLGTIQADGLSDVSVNTNMIKLGWSPVSDGHRGDVDPWIPRYGSTLTLEAAQLAPP 420
Db 933 -QPKPTVQTKG-----RPHSQCLNSSLPLSP 957
Qy 421 --IYPPGFGAEVFFMSDFPIAHGTNGLSVPC-----TIQEFVTHFVNEQAPTRGEAALL 474
Db 958 QLMFP-----AISAPCSSAPSPAGSVT----- 980
Qy 475 HYLDPDTHRNLCGEFKLYPEGEMTC-VPNSSSGTGPTQ 509
Db 981 ---DASKHR-----PRAFVPECKIPAS---PQT 1002

RESULT 13
US-10-121-032-63
; Sequence 63, Application US/10121032
; Patent No. US2002015550A1
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;
; GENERAL INFORMATION:
; APPLICANT: BYLINA, Edward J.
; TITLE OF INVENTION: GLYCOSIDASE ENZYMES
; NUMBER OF SEQUENCES: 72
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Gray Cary Ware & Freidenrich LLP
; STREET: 4365 Executive Drive, Suite 1600
; CITY: San Diego
; STATE: CA
; COUNTRY: USA
; ZIP: 92121
;
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: Windows95
; SOFTWARE: FastSeq for Windows Version 2.0
;
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/121,032
; FILING DATE: 09-Apr-2002
; CLASSIFICATION: <Unknown>
;
; PRIORITY APPLICATION DATA:
; APPLICATION NUMBER: US/09/134,078
; FILING DATE: 13-AUG-1998
; APPLICATION NUMBER: 08/949,026
; FILING DATE: 10-OCT-1997
; APPLICATION NUMBER: 60/056,916
; FILING DATE: 06-DEC-1996
;
; ATTORNEY/AGENT INFORMATION:
; NAME: Haile, Lisa A.
; REGISTRATION NUMBER: 38,347
; REFERENCE/DOCKET NUMBER: 09010/024002
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 858/677-1456
; TELEFAX: 858/677-1465
;
; INFORMATION FOR SEQ ID NO: 63:
;
; SEQUENCE CHARACTERISTICS:
; LENGTH: 956 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
;
; MOLECULE TYPE: protein
; FRAGMENT TYPE: internal
;
; SEQUENCE DESCRIPTION: SEQ ID NO: 63:
US-10-121-032-63
Query Match          3.3%; Score 97; DB 9; Length 956;
Best Local Similarity 20.4%; Pred. No. 4.9; Mismatches 225; Indels 246; Gaps 34;
Matches 137; Conservative 64;

QY 5 SKDAPTNM--DGTSGAGQLVPEANTAEPIS-----MEPVAGAATAAATAGQV 49
DB 191 SKD-PDNLIIIVGTSNYSQVDVA-SADPISDTNVAYTLHFYAFNPHDNLRNVAQTALDN 248
QY 50 NM---IDPWIMNMYVQAQGETTSPNNTPGDLFDLQGLPHLNPFLSHLAQMYNGW-- 104
DB 249 NVALEFVTEW--GTILNTGGQEPKDESTNTMAFLKEKGIS-HANNLSLDAKAPETGTSVQ 305
QY 105 GNMKVKVLLAGNAFTAGKILISCI-----PPGAAQNISIAQATMPFHVIADVRV 154
DB 306 AQGVSGLSLNSKLTASGEILVKNIIQNWDITSTGPKTTQCTSTIECIARAMEAQAQAGDEII 365
QY 155 LEPIEVLVEDVRNVLFNHNDNAPTMRVLCMLYTPLRASGSSGTDPFVIAGRVLTCPSPD 214
DB 366 IAPGNYNFQDKIQGAFNRS-----VY--LYGSANGSTNPILIRGESATNP-PV 411
QY 215 FSFL-----FLVP-----PNVQKT-----KPFVSNPLPLNLT----- 242
DB 412 FSGLDYNNGYLLSIEGDYWNRIKDIKFTGSKGIVLDNSGSKLKNLVVHDIGEEAHLRD 471
QY 243 --SNSRV-----PSLIKSMVSRDHQVMQVQFQNG-----RVTLDG 275
DB 472 GSSNSIDGCTTYNTGRTKPGFEGELYGSDKGQHDITYERACNNNTIENCTVGPNNVTABG 531
QY 276 --QLQGTTPTSASQLCKIRGVSFHANGNGYNLTE-----LDGSPVH 315
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DB 532 VDVKECTMNTI-----IRNCVFSAEGISGENSSDAFIDLKGAIFYVRYNTFNVDGSEV- 584
QY 316 AFESPAPIGFDPDLGECDDHWEASPTTQFNTGDVVIKQINVKQESAFAPHILCTIQADGLSDV 375
DB 585 ----INTGVDFLDRG-----TGFNTG-----PRNAIFENTY--NLGS----- 615
QY 376 SYNTNMIAKLGVSPVSDGHRGVDVDPWVIPRYGSTLTTEAAQLAPPIYPPGFGAIVFFMS 435
DB 616 -----RASEISTARKKQSP-----EQTHVWDNIRNPN-----SV 645
QY 436 DFPPIAHGTNGL-----SVPCTTIPQEVTHFVNEQAPTRGEAALLHYLDP----- 479
DB 646 DFPISDGTENLVNKFPCPDWNIPECPNVDE-----TNQAPT-----ISFLSPVNNITLV 693
QY 480 -----DTHRNLGFEFKLYPEGFMTCVPNSS-----GTGPOTLPINGVFFVFSW 521
DB 694 EGYNLQVEYNATDADGTIDNVKLYIDNNLVQRQINSTSYKNWGHSDSPNTDELNGL----- 747
QY 522 VSRFYQLKPVGT 533
DB 748 TEGTYTLKAIAT 759

RESULT 14
US-09-738-626-6888
; Sequence 6888, Application US/09738626
; Publication No. US20020197605A1
; GENERAL INFORMATION:
; APPLICANT: NAKAGAWA, SATOSHI
; APPLICANT: MIZOGUCHI, HIROSHI
; APPLICANT: ANDO, SEIKO
; APPLICANT: HAYASHI, MIKIRO
; APPLICANT: OCHIAI, KEIKO
; APPLICANT: YOKOI, HARUHIKO
; APPLICANT: TATEISHI, NAKO
; APPLICANT: SENOH, AKIHIRO
; APPLICANT: IKEDA, MASATO
; APPLICANT: OZAKI, AKIO
; TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
; FILE REFERENCE: 249-125
; CURRENT APPLICATION NUMBER: US/09/738,626
; CURRENT FILING DATE: 2000-12-18
; PRIOR APPLICATION NUMBER: JP 99/377484
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: JP 00/159162
; PRIOR FILING DATE: 2000-04-07
; PRIOR APPLICATION NUMBER: JP 00/280988
; PRIOR FILING DATE: 2000-08-03
; NUMBER OF SEQ ID NOS: 7059
; SOFTWARE: PatentIn ver. 3.0
; SEQ ID NO 6888
; LENGTH: 1344
; TYPE: PRT
; ORGANISM: Corynebacterium glutamicum
US-09-738-626-6888
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Query Match 3.3%; Score 96; DB 9; Length 1344;
Best Local Similarity 18.4%; Pred. No. 10;
Matches 90; Conservative 57; Mismatches 167; Indels 176; Gaps 22;

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QY 10 TNWDCSTGAGQLVPEANTAEPISMEPVAGATAAATAGQVMIDPIMNMYVQAQGETT 69
DB 147 TNWSSDGEYFEITNTTAEPIDFSDT-----LNLY-PODEFT 185
QY 70 ISPNNI-----PGDIL-----FDLQGLPHLNPFLSHLAQMYNGWGNMKVKVLL 113
DB 186 ----NTNEAVAAEPFGDVLIIQPKSLVFWFKNGPNDPEATADFAEY----- 228
QY 114 AGNAFTAGKILISCIIPPFGFA---AQNISIAQATMPFHV-----ADVRLPEPIEV 160
DB 229 -CTNLEAGKDLVEISSGGMANGTARGMQIQTN--GHIVNRGFYNMAGASDVKANEGLHF 285
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Qy 161 PLED---YRNVLHNDNAPTRLVCMLYTLPLRASGSSSGTDPPFVIAGRVLTC-PSPDPS 216
Db 286 AVESDLKQTLVSGGATPGTVTSQIPNPLSAVIADSSV-PLITDNTATSINPAEPFT 344
Qy 217 FLFLVPPNVEQKTKPFSVPN-----LPLNTLSNSRVPSLIKSMW 255
Db 345 FAFNITDDQVTRATLHVTSSAGEAATINLTEDDGSFNWALPAADLTGK---SWFEVTV 401
Qy 256 VSRHGQWQFQNGRVRTLDGQ-----LQGT----- 281
Db 402 TATDGFNSVTTPEVRVTVVDGANTDPLRLNLEENQWVSGTTDVGASDVFQKLELLIDDA 461
Qy 282 -----PTSASOLCKIRGSVFHANG--GNCYNLTLDGSPY---HAFESPATGCF 325
Db 462 PAVTNSSLSAAPTFAMEVQT--DVFFRNGILAGGEELRIFDQGTANTETISTEPVPL-- 517
Qy 326 PDLGECWHM-----EASPTQFNTGDVTKQINVKQESAFAPHLGTIOADG 371
Db 518 -----YHINEDGTLTVSVYAGTKAAPEIDLNN--DDFQIRNLRLILPDGRTLTPAG 568
Qy 372 LSDSVNTNM 381
Db 569 ISDSNAWLNM 578

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RESULT 15

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US-09-712-363-158
; Sequence 158, Application US/09712363
; Patent No. US20020164588A1
; GENERAL INFORMATION:
; APPLICANT: Eisenberg, David
; APPLICANT: Rotstein, Sergio H.
; APPLICANT: Marcotte, Edward M.
; TITLE OF INVENTION: DETERMINING THE FUNCTIONS AND
; FILE REFERENCE: 07419-032001
; CURRENT APPLICATION NUMBER: US/09/712,363
; CURRENT FILING DATE: 2000-11-13
; PRIOR APPLICATION NUMBER: PCT/US00/02246
; PRIOR FILING DATE: 2000-01-28
; PRIOR APPLICATION NUMBER: 60/179,531
; PRIOR FILING DATE: 2000-02-01
; PRIOR APPLICATION NUMBER: 60/117,844
; PRIOR FILING DATE: 1999-01-29
; PRIOR APPLICATION NUMBER: 60/118,206,
; PRIOR FILING DATE: 1999-02-01
; PRIOR APPLICATION NUMBER: 60/126,593
; PRIOR FILING DATE: 1999-03-26
; PRIOR APPLICATION NUMBER: 60/134,093
; PRIOR FILING DATE: 1999-05-14
; PRIOR APPLICATION NUMBER: 60/134,092
; PRIOR FILING DATE: 1999-05-14
; PRIOR APPLICATION NUMBER: 60/165,124
; PRIOR FILING DATE: 1999-11-12
; PRIOR APPLICATION NUMBER: 60/165,086
; PRIOR FILING DATE: 1999-11-12
; NUMBER OF SEQ ID NOS: 292
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 158
; LENGTH: 678
; TYPE: PRT
; ORGANISM: Mycobacterium tuberculosis
US-09-712-363-158

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Query Match 3.3%; Score 95.5; DB 9; Length 678;
 Best Local Similarity 21.6%; Pred. No. 4;
 Matches 126; Conservative 63; Mismatches 195; Indels 199; Gaps 35;

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Qy 7 DAPTNM-----DCTSGAGOLVPEANTPAETPSMEPVAGAATAATAGQVNMIDPWIMNN 59
Db 24 DIRTNOVSTILASDGETAKIVPPEGNRVD-VNLSQVPMHVHVRQAVIAAE-----DRN 74
Qy 60 YVQAPOGEFT----ISPNNTPGDILFDLQJLGPLNPLSLHAQMY-----NGWVG 105

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Db 75 FYSNPGFSGTGFARAVKNNLEGG---DLQGG-----STITQQYVKNALVGAQHWSG 124
Qy 106 NM-KVKVLLAGNAFTAG-----KIITSCIPPGFAAQNISIAOATMRPHVITADRVRLP 157
Db 125 LMRKAKELVIATKMGSEWSKDDVLQAYLNIIFYGCAIGISAASKAYFDKPVQELTVAE- 183
Qy 158 IEVPLEDVNRNVLHNDNAPTRLVCMLYTLPLRASGSSSGTDPP-----FVIAGRVL 209
Db 184 -----GALLAALI-----RRPSTLDPVDPPEGAHARWNNVLDGMVET 220
Qy 210 ---CPSPDPSFLF--LVPPNV---EOKTKP-----FVSNPLPLNTLSNS 245
Db 221 KALSPNDRAAQVFPETVPPDLARAENQTKGPNGLIERQVTRELLELFNIDEQTLNT---- 276
Qy 246 RVPSLIKSMVSRDHGQWQFQNGRVRTLDGQ-----LQGTPTSASOLCKI-- 291
Db 277 -----QGLVVT-----TTIDPQAQRAAEKAVAKYLDGQDDPMRAAVVSDP 317
Qy 292 -RGSYFHANG---NGYNLTTEL---DGSPYHAFESPAP-----IGPPDLGECMDWHMEASPT 340
Db 318 HNGAVRAYYGGDNANGDFQAAGLQGTSGSEKVFALVALEQIG---LG---YQVDSPL 371
Qy 341 TQFNTGDVTKQINVKQESAFAPHLGTIOADGLSDSVSVNTN-----MIAKLGWVSPVSD-GH 395
Db 372 TV---DGIKITNVEGEC-----GTCNIAEALKMSLNTSYRLMLKLNKGPPQAVADAHA 422
Qy 396 RGDVDPWVPIRYGSLTEAAQLAPPIPPGCEAIVF-----FMSDFPFIHCT---NGLS 447
Db 423 QAGIAS-SFPGVAHTLSEDDGKGGP-----NNGIVLQYQYTRVIDMASAYATLAASGIY 475
Qy 448 VPCTIPQEFVTHFVNEQAPTRGEAALLHYLDPDTHRNLGEPKL 490
Db 476 HP-----PHEVQKVVSANGQV-----LFDASTADNTGDQRI 506

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Search completed: March 10, 2003, 19:04:41
 Job time : 29 secs

GenCore version 5.1.3
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OM protein - protein search, using sw model

Run on: March 10, 2003, 18:26:56 ; Search time 31 Seconds
(without alignments)
2028.151 Million cell updates/sec

Title: US-09-926-799-1

Perfect score: 2896

Sequence: 1 MMASKDAPTNDGTSGAGQ.....YQLKPVGTAGPACRLGIRRS 545

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 559967 seqs, 115362732 residues

Total number of hits satisfying chosen parameters: 559967

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Pending_Patents_AA_New.*

- 1: /cgn2_6/ptodata/1/paa/PCT_NEW_COMB.pep.*
- 2: /cgn2_6/ptodata/1/paa/US06_NEW_COMB.pep.*
- 3: /cgn2_6/ptodata/1/paa/US07_NEW_COMB.pep.*
- 4: /cgn2_6/ptodata/1/paa/US08_NEW_COMB.pep.*
- 5: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep.*
- 6: /cgn2_6/ptodata/1/paa/US10_NEW_COMB.pep.*
- 7: /cgn2_6/ptodata/1/paa/US60_NEW_COMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	DB ID	Description
1	1950	67.3	530	6	US-10-314-739-3
2	272.5	9.4	669	6	US-10-209-507-2
3	272	9.4	668	6	US-10-209-507-4
4	122.5	4.2	6310	6	US-10-282-122A-67793
5	122	4.2	3263	6	US-10-282-122A-77663
6	114.5	4.0	1765	6	US-10-282-122A-48055
7	112	3.9	3930	6	US-10-282-122A-46817
8	109	3.8	10431	7	US-60-427-045-310
9	108.5	3.7	1194	6	US-10-282-122A-46163
10	108	3.7	5935	6	US-10-243-242A-8
11	108	3.7	5935	6	US-10-243-242B-8
12	108	3.7	5935	6	US-10-243-243B-8
13	107.5	3.7	2703	6	US-10-282-122A-66108
14	106.5	3.7	931	1	PCT-US02-33645-26
15	106	3.7	615	6	US-10-366-683-26695
16	104	3.6	345	6	US-10-218-140-4332
17	103.5	3.6	1210	6	US-10-258-106-1
18	103.5	3.6	1450	6	US-10-144-779-374
19	102.5	3.5	1210	6	US-10-293-017-66
20	102.5	3.5	1210	6	US-10-293-071-66
21	101	3.5	1556	6	US-10-144-779-550
22	100.5	3.5	4288	7	US-60-443-566-2732
23	100	3.5	2358	6	US-10-282-122A-45763
24	100	3.5	6879	7	US-60-419-463-26
25	99	3.4	4961	1	PCT-US02-10366-64
26	98	3.4	490	6	US-10-258-951-67

27	98	3.4	1194	6	US-10-282-122A-46577	Sequence 46577, A
28	97.5	3.4	1328	1	PCT-US02-39126-6	Sequence 6, Appl
29	97.5	3.4	2126	6	US-10-052-648A-39	Sequence 39, Appl
30	97.5	3.4	3074	6	US-10-282-122A-65531	Sequence 65531, A
31	97	3.3	584	5	US-09-724-676-91417	Sequence 91417, A
32	97	3.3	584	5	US-09-724-676A-91417	Sequence 91417, A
33	97	3.3	645	5	US-09-724-676-91423	Sequence 91423, A
34	97	3.3	645	5	US-09-724-676A-91423	Sequence 91423, A
35	96.5	3.3	852	7	US-60-443-566-3834	Sequence 3834, Ap
36	96.5	3.3	903	5	US-09-724-676-94702	Sequence 94702, A
37	96.5	3.3	903	5	US-09-724-676A-94702	Sequence 94702, A
38	96.5	3.3	941	5	US-09-724-676-94682	Sequence 94682, A
39	96.5	3.3	941	5	US-09-724-676A-94682	Sequence 94682, A
40	96.5	3.3	943	5	US-09-724-676-94698	Sequence 94698, A
41	96.5	3.3	943	5	US-09-724-676-94699	Sequence 94699, A
42	96.5	3.3	943	5	US-09-724-676-94700	Sequence 94700, A
43	96.5	3.3	943	5	US-09-724-676-94701	Sequence 94701, A
44	96.5	3.3	943	5	US-09-724-676A-94698	Sequence 94698, A
45	96.5	3.3	943	5	US-09-724-676A-94699	Sequence 94699, A

ALIGNMENTS

RESULT 1
US-10-314-739-3
; Sequence 3, Application US/10314739
; GENERAL INFORMATION:
; APPLICANT: Estes, Mary K
; Jiang, Xi
; Graham, David Y
; TITLE OF INVENTION: Methods and Reagents to Detect and
; Characterize Norwalk and Related Viruses
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESS: Fulbright & Jaworski L.L.P.
; STREET: 801 Pennsylvania Ave., N.W.
; CITY: Washington, D.C.
; STATE: <unknown>
; COUNTRY: USA
; ZIP: 20004
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/314,739
; FILING DATE: 09-Dec-2002
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/08/486,049
; FILING DATE: June 7, 1995
; ATTORNEY/AGENT INFORMATION:
; NAME: Davis, Peter
; REGISTRATION NUMBER: 36,119
; REFERENCE/DOCKET NUMBER: 311.023
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-662-0200
; TELEFAX: 202-662-4643
; TELEX: <Unknown>
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 530 amino acids
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-10-314-739-3

Query Match 67.3%; Score 1950; DB 6; Length 530;
Best Local Similarity 67.0%; Pred. No. 1.9e-160;
Matches 366; Conservative 66; Mismatches 96; Indels 18; Gaps 7;

6572862

QY 1 MMASKDAPTNNDGTSAGQLVPEANTAEPTSMBEPVAGATAAATAAGVNNMIDPWIMNNY 60
 Db 1 MMASKDAPTNNDGTSAGQLVPEANTAEPTSMBEPVAGATAAATAAGVNNMIDPWIMNNY 60
 QY 61 VOAPQGEFTISPNNTPGDILFDLQGLPHLNPFLSHLAQMYNGWGNMKVKVLLAGNAFTA 120
 Db 61 VOAPQGEFTISPNNTPGDILFDLQGLPHLNPFLSHLAQMYNGWGNMKVKVLLAGNAFTA 120
 QY 121 KIIISCIPTPPGFAAQTMSIAQATMPPHVIADRVLEPIEVLPLEDVRNVLPHNND-NAPTM 179
 Db 121 KIIIVSCIPPPGFSNLTIAQATLFPPIADRVLTDLPIEVLPLEDVRNVLPHNNDNQOTM 180
 QY 180 RLVCMLYTPLRASGSSGTDPEVIAGRVLTCPSPDFSLFLVPPNVEQTKPFSPVNPPL 239
 Db 181 RLVCMLYTPLRGCGTG--DSEVAVRWTCPSDFENFLFLVPPIVEQTKRFFLPLNPL 238
 QY 240 NTLNSRVPSLTKSMVSRDHQMVQFONGRVTLQGLQGTTPTSASOLCKIRGSVFHAN 299
 Db 239 SLSLSRAPLPISSMGISPDNVQSVQFONGRCTLGRLVGTTPVSLSHVAKIRGT----S 294
 QY 300 GNGYNLTLDGSPYHAPESPAPICFPDGLGCDWHMEASPTTOFNTGDIQINVKQESA 359
 Db 295 NCTVINLTLDGTPHPFEGPAPICFPDGLGCDWHN---MTQFGHSSQTQTDVDTTPTD 351
 QY 360 FAPHLGTTQADGLSDVSVNTNMIKLGWSPVSDGHRGDVDPPWIPRYGSLTLEAAQLAP 419
 Db 352 FVPHLGSIQANGIG---SGNVGVLSWISPPSHPSGQVDLWKIPNKGSSITEATHLAP 407
 QY 420 PTPPGFGAIVFFMSDFPIAHGTNGLSVPCITPOEFVTHFVNEQAPRGEAALLHYLDP 479
 Db 408 SVTPPGFGEVLVFFMSKMP---GPGAYNLPCLLPQEIYISHLASEQAPTVGEAALLHYVDP 464
 QY 480 DTHRNLGEPKLYPEGMTCPVNSGSGTQPLPINGVEFVSVSVRYOLKPVGTAGPA-C 538
 Db 465 DTGRNLGEPKAYPDGFLTCVPNGASSGPOQLPINGVEFVSVSVRYOLKPVGTASSARG 524
 QY 539 RLGIIR 544
 Db 525 RLGLRR 530

RESULT 2
 US-10-209-507-2
 ; Sequence 2, Application US/10209507
 ; GENERAL INFORMATION:
 ; APPLICANT: Audonnet, et al.
 ; TITLE OF INVENTION: FELINE CALCIVIRUS GENES AND VACCINES IN PARTICULAR RECOMBINANT
 ; FILE REFERENCE: 454313-3151.2
 ; CURRENT APPLICATION NUMBER: US/10/209,507
 ; PRIOR FILING DATE: 2002-11-12
 ; PRIOR APPLICATION NUMBER: 09/617,594
 ; PRIOR FILING DATE: 2000-07-14
 ; PRIOR APPLICATION NUMBER: 60/193,332
 ; PRIOR FILING DATE: 2000-03-30
 ; PRIOR APPLICATION NUMBER: France 00 01761
 ; PRIOR FILING DATE: 2000-02-11
 ; PRIOR APPLICATION NUMBER: France 99 09421
 ; PRIOR FILING DATE: 1999-07-16
 ; NUMBER OF SEQ ID NOS: 26
 ; SOFTWARE: Patentin version 3.0
 ; SEQ ID NO 2
 ; LENGTH: 669
 ; TYPE: PRT
 ; ORGANISM: Feline calicivirus
 US-10-209-507-2

Query Match 9.4%; Score 272.5; DB 6; Length 669;
 Best Local Similarity 23.4%; Pred. No. 7.5e-15;
 Matches 128; Conservative 76; Mismatches 194; Indels 149; Gaps 26;
 QY 13 DGTSGAGQLVPEANT-AEPTSMBEPVAGATAAATAAGVNNMIDPWIMNNYVQAPQGEFTI- 70

Db 126 DGDSSI--TTPEQGLTVGGVIAEPASAQMATADAATGKSVDSW-----ESFSEFH 174
 QY 71 -----SPNNTPGDILFDLQGLPHLNPFLSHLAQMYNGWGNMKVKVLLAGNAFTAGKII 125
 Db 175 TSVNWTSETGKILFKQSLGPLLNPYLEHLKSLYVAWSGVSDVRFISGSGVFGKLA 234
 QY 126 SCIPPGF-AAQNTISIAQATMPPHVIADRVLEPIEVLPLEDVRNVLPHNNDNAPTMLVCM 184
 Db 235 IVVPPGVDPVQSTSMQLQ---YPHVLFDAQVPEVIFSPDLRSTLYHLSMDSDTTSLVIM 291
 QY 185 LY-----TPLRASGSSGTDPEVIAGRVLTCPSPDFSLFLVPPNVEQTKPFSPVNPPLN 240
 Db 292 VYNDLNPYANDSNSSGC---IVT--VETAPGPDKPHLLKPPG-----S 331
 QY 241 TLSNRVPS-LI-----KSMVSRDHQMVQ-----FQNGRVTLQGLQGTTPTSASQL 288
 Db 332 MLTHGSIPLSDLPKSSLSLWGNRYWSDITDFVIRPFVFOANR-HFDFN-QETAGWSTPRF 389
 QY 289 CKIRGSVFHANG---GNG-----YNTLDELGSPY--- 314
 Db 390 RPIITITISNGSKLGTGVATDIYVPGIPDGWPDTTIGEELTPAGDYSITNGSNDIATA 449
 QY 315 HAFESPAPI---GFPDLGEC-----WHMEASPTTOFNT-----GDVIRKQINVKQESAF 360
 Db 450 NAYDSADVITNTNFRGMWICGALORAWGDKKISSATFITAIKEGNTLKPSTIDMTKI 509
 QY 361 A-----PHLGTITQADGLSDVSVNTNMIKLGW-----SPVSDGHRGDVDPPWIPRYGSLT 412
 Db 510 AVYQDTHVG-----RDVQTSDDTLAILGYTGIGEAIGSNRDSVVVRISMLPETGAR-- 560
 QY 413 EAAQLAPPIPPGGEAIVFFMSDFPIAHGTNGLSVPCITPOEFVTHFVNEQAPRGEAA 472
 Db 561 -----GNNHPIFYKNSIKLGYLRSIDV-----FNSOILHTSKQLS 596
 QY 473 LLHYLDP 479
 Db 597 LNHVLLP 603

RESULT 3
 US-10-209-507-4
 ; Sequence 4, Application US/10209507
 ; GENERAL INFORMATION:
 ; APPLICANT: Audonnet, et al.
 ; TITLE OF INVENTION: FELINE CALCIVIRUS GENES AND VACCINES IN PARTICULAR RECOMBINANT
 ; FILE REFERENCE: 454313-3151.2
 ; CURRENT APPLICATION NUMBER: US/10/209,507
 ; CURRENT FILING DATE: 2002-11-12
 ; PRIOR APPLICATION NUMBER: 09/617,594
 ; PRIOR FILING DATE: 2000-07-14
 ; PRIOR APPLICATION NUMBER: 60/193,332
 ; PRIOR FILING DATE: 2000-03-30
 ; PRIOR APPLICATION NUMBER: France 00 01761
 ; PRIOR FILING DATE: 2000-02-11
 ; PRIOR APPLICATION NUMBER: France 99 09421
 ; PRIOR FILING DATE: 1999-07-16
 ; NUMBER OF SEQ ID NOS: 26
 ; SOFTWARE: Patentin version 3.0
 ; SEQ ID NO 4
 ; LENGTH: 668
 ; TYPE: PRT
 ; ORGANISM: Feline calicivirus
 US-10-209-507-4

Query Match 9.4%; Score 272; DB 6; Length 668;
 Best Local Similarity 31.0%; Pred. No. 8.3e-15;
 Matches 76; Conservative 36; Mismatches 77; Indels 56; Gaps 11;
 QY 23 PRANT-----AEP-ISMPEVAGATAAATAAGVNNMIDPWIMNNYVQAPQGEFTI----- 70
 Db 133 PEQGLTVGGVIAEPASAQMATADAATGKSVDSW-----W-----EAFSEHTSVN 177
 QY 71 -SPNNTPGDILFDLQGLPHLNPFLSHLAQMYNGWGNMKVKVLLAGNAFTAGKIIISCIP 129

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Db 178 WTSSTQGGKILPKQSLPLNLYLTHLAKLYVWAGSIEVRFSGSGVFGKLAIVVP 237
Qy 130 PGF-AAQNISIAQATMFHVIADRVLEPIEVPLEDVNRVLFHNDNAPTMRVLCMLY-- 186
Db 238 PGIDPVQSTSMLO---YPHVLFDAQREVIFITFDLRNLSYHLMSDOTTSLVIMYND 294
Qy 187 --TPURASGSSGTPDFVIAGRVLCPCSPDFSLFLVPPNVBEQTKPFSPVNLPLNTLSN 244
Db 295 LINPVANDSNSSGC---IVT--VETKPGPDFKHLKKPG-----SMLTH 334
Qy 245 SRVPS 249
Db 335 GSIPS 339
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RESULT 4

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US-10-282-122A-67793
; Sequence 67793, Application US/10282122A
; GENERAL INFORMATION:
; APPLICANT: Wang, Liangsu
; APPLICANT: Zamudio, Carlos
; APPLICANT: Malone, Cheryl
; APPLICANT: Haselbeck, Robert
; APPLICANT: Ohlsen, Karl
; APPLICANT: Zyskind, Judith
; APPLICANT: Wall, Daniel
; APPLICANT: Trawick, John
; APPLICANT: Carr, Grant
; APPLICANT: Yamamoto, Robert
; APPLICANT: Forsyth, R.
; APPLICANT: Xu, H.
; TITLE OF INVENTION: Identification of Essential Genes in Microorganisms
; FILE REFERENCE: ELITRA.034A
; CURRENT APPLICATION NUMBER: US/10/282,122A
; CURRENT FILING DATE: 2003-02-20
; PRIOR APPLICATION NUMBER: 60/191,078
; PRIOR FILING DATE: 2000-03-21
; PRIOR APPLICATION NUMBER: 60/206,848
; PRIOR FILING DATE: 2000-05-23
; PRIOR APPLICATION NUMBER: 60/207,727
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: 60/230,335
; PRIOR FILING DATE: 2000-09-06
; PRIOR APPLICATION NUMBER: 60/230,347
; PRIOR FILING DATE: 2000-09-09
; PRIOR APPLICATION NUMBER: 60/242,578
; PRIOR FILING DATE: 2000-10-23
; PRIOR APPLICATION NUMBER: 60/253,625
; PRIOR FILING DATE: 2000-11-27
; PRIOR APPLICATION NUMBER: 60/257,931
; PRIOR FILING DATE: 2000-12-22
; PRIOR APPLICATION NUMBER: 60/267,636
; PRIOR FILING DATE: 2001-02-09
; PRIOR APPLICATION NUMBER: 60/269,308
; PRIOR FILING DATE: 2001-02-16
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 78614
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 67793
; LENGTH: 6310
; TYPE: PRT
; ORGANISM: Pseudomonas putida
US-10-282-122A-67793
```

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Query Match 4.2%; Score 122.5; DB 6; Length 6310;
Best Local Similarity 19.5%; Pred. No. 2;
Matches 110; Conservative 70; Mismatches 221; Indels 163; Gaps 22;
Qy 8 APTNMDGTSGAGQLVPEANTAEPISEMPVAGATAAATAGQVNMIDPWIMNNYVQAPQGE 67
Db 4016 AASNLNSAATVLSGQGEAGASVTVRDASGAILATGVNOSGQFQITLPSAQVTSPLQ 4075
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Qy 68 FTIS-----PNNTPGDILFDLQLGPHLNPFLSHLAOMYNG-----WVG 105
Db 4076 VTLSDAAGNVSGPASLATPDHTPPAAI-----SNPVLSDQGRQLSGSGEAGATVQVR 4127
Qy 106 NKVKVLLAGNAFTACKIIISCLIPPGFAAQNISIAQATMFPHVIAADVRLVLEPIEVLEDV 165
Db 4128 NAAGALLGATGATVGTGDRFTVTFTDTPQANGQVIGVTOQMDAASNTSPAINVTTDLTPPAPL 4187
Qy 166 RVLFPHNNNDNPTMRVLCMLYTPLRASGSS---SGTDPFVI----- 203
Db 4188 TNVVLNNG-----LTLTGLGAGAGATVTVHIGDPGTIICTGLVAANGSFLLTNSAQ 4238
Qy 204 -----AGR-----VLTCPSPDFSEFLVPPNVBEQTKP---FSVPNLPLNTLSNS 245
Db 4239 LNAQLLSVTQTDAGNNTSTAVAVTAPDET-----PP-----TAPTALALSGTGLQLTGNA 4288
Qy 246 RVPSLIKSMVSRD-HGQMVQFONG--RVTL-----DGLOQTTPITSASOLCKIRGSVFH 297
Db 4289 EAGSTVTVRDASGNVLCTAVAGNGTFTVTLNSAQTNGQILQVATADAA-----GNVSP 4342
Qy 298 ANGGNGYNLTDELGDSPYHAFESAPIGFPDLGEC-----DWHMEASPTTQFNTGDDVI 349
Db 4343 A-----APYTRADTTPPAAVANLAVSANGATLTGDCGAGATVTVRAPDGTVL 4389
Qy 350 KOINVKQESAF-----PHLGTIQADGLSDYSVNTNMIAKLGVSPVSDGHRGDV 399
Db 4390 GNATVAADGHFVSLSPLAAITGESLSVQADAAQNVSPAQNVTAP-CALAPATP----- 4442
Qy 400 DPWVPRYGSTLTAAQALAPPYPPGFGGAIVFFMSDFPIAHGTNGL---SVPCCTIPOEF 456
Db 4443 DNLILAADGLSVSGTAEAGSTIK-----VYGPNGVLIGSSPVTNDGTF 4485
Qy 457 VTHFVNEQAPTRGCEAALLHVLPDP 480
Db 4486 TVNLGSAQA--NGEVLOVSATGPD 4507
RESULT 5
US-10-282-122A-77663
; Sequence 77663, Application US/10282122A
; GENERAL INFORMATION:
; APPLICANT: Wang, Liangsu
; APPLICANT: Zamudio, Carlos
; APPLICANT: Malone, Cheryl
; APPLICANT: Haselbeck, Robert
; APPLICANT: Ohlsen, Karl
; APPLICANT: Zyskind, Judith
; APPLICANT: Wall, Daniel
; APPLICANT: Trawick, John
; APPLICANT: Carr, Grant
; APPLICANT: Yamamoto, Robert
; APPLICANT: Forsyth, R.
; APPLICANT: Xu, H.
; TITLE OF INVENTION: Identification of Essential Genes in Microorganisms
; FILE REFERENCE: ELITRA.034A
; CURRENT APPLICATION NUMBER: US/10/282,122A
; CURRENT FILING DATE: 2003-02-20
; PRIOR APPLICATION NUMBER: 60/191,078
; PRIOR FILING DATE: 2000-03-21
; PRIOR APPLICATION NUMBER: 60/206,848
; PRIOR FILING DATE: 2000-05-23
; PRIOR APPLICATION NUMBER: 60/207,727
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: 60/230,335
; PRIOR FILING DATE: 2000-09-06
; PRIOR APPLICATION NUMBER: 60/230,347
; PRIOR FILING DATE: 2000-09-09
; PRIOR APPLICATION NUMBER: 60/242,578
; PRIOR FILING DATE: 2000-10-23
; PRIOR APPLICATION NUMBER: 60/253,625
; PRIOR FILING DATE: 2000-11-27
; PRIOR APPLICATION NUMBER: 60/257,931
; PRIOR FILING DATE: 2000-12-22
```

; APPLICANT: Xu, H.									
; TITLE OF INVENTION: Identification of Essential Genes in Microorganisms									
; FILE REFERENCE: ELITRA.034A									
; CURRENT APPLICATION NUMBER: US/10/282,122A									
; CURRENT FILING DATE: 2003-02-20									
; PRIOR APPLICATION NUMBER: 60/191,078									
; PRIOR FILING DATE: 2000-03-21									
; PRIOR APPLICATION NUMBER: 60/206,848									
; PRIOR FILING DATE: 2000-05-23									
; PRIOR APPLICATION NUMBER: 60/207,727									
; PRIOR FILING DATE: 2000-05-26									
; PRIOR APPLICATION NUMBER: 60/230,335									
; PRIOR FILING DATE: 2000-09-06									
; PRIOR APPLICATION NUMBER: 60/230,347									
; PRIOR FILING DATE: 2000-09-09									
; PRIOR APPLICATION NUMBER: 60/242,578									
; PRIOR FILING DATE: 2000-10-23									
; PRIOR APPLICATION NUMBER: 60/253,625									
; PRIOR FILING DATE: 2000-11-27									
; PRIOR APPLICATION NUMBER: 60/257,931									
; PRIOR FILING DATE: 2000-12-22									
; PRIOR APPLICATION NUMBER: 60/267,636									
; PRIOR FILING DATE: 2001-02-09									
; PRIOR APPLICATION NUMBER: 60/269,308									
; PRIOR FILING DATE: 2001-02-16									
; Remaining Prior Application data removed - See File Wrapper or PALM.									
; NUMBER OF SEQ ID NOS: 78614									
; SOFTWARE: PatentIn version 3.1									
; SEQ ID NO 48055									
; LENGTH: 1765									
; TYPE: PRT									
; ORGANISM: Burkholderia cepacia									
US-10-282-122A-48055									
Query Match 4.0%; Score 114.5; DB 6; Length 1765;									
Best Local Similarity 20.9%; Pred. No. 1.6;									
Matches 102; Conservative 58; Mismatches 198; Indels 129; Gaps 22;									
Qy	2	MMASKDAPTN-----MDGTSGAGQLVPEANTAEPISE-----PVAGATAAAT-----AG	47						
Db	966	MIAPTTEPTSSVTVPMTGAFCA-----VSPVTVTEADGVPVLPAAASAVATPITVPAG	1017						
Qy	48	QVNMDPWNMNYVOAQOGEFTISPNNTPGDILFDLQGLPHLNPFLSLHAQMYNGWGNM	107						
Db	1018	S-----GVEGVYVHAPLGSATVVASGVP-----SPFVSLTVAPASAVPDS	1058						
Qy	108	KVKVLLAGNAFTAGK--IIISCIPPGFAAQNISIAQATMFPHVIAVVRVLEPIEVPLEDV	165						
Db	1059	DVPSV---AFTVGNAGAVSVSSKAVLGLTLLPAYS---VAVTVRLCAPSPKPVGV	1110						
Qy	166	RNVLFHNDNAPTMRVLCMLYT-----PLRASGSSGCTDPFVIAGRVLTCPSPDFS	216						
Db	1111	-NVQFPDGSVAVVNNVVPSTLLTVLPASAVPLNVGVASSVLPPEMIA-----	1157						
Qy	217	FLFLVPPNVEQTKPFSPNPLNLTLSNSRVPSLIKSMVSRDHGQMVFQNGRVTLDGQ	276						
Db	1158	-----PTTEPTSSVTVPMTGAPG---AVVSPVTVTEADGVP-----LPAA	1194						
Qy	277	LOGTPTTASQLCKIRGVSFHANGNGYNLTLDGSPYHAFESPAPI-GFPDLGECDDWHM	335						
Db	1195	SVAVTPIITVAGSGVGEVYVHAPLGSATVVASGVPSPFVSMLTVPASAVPD-----	1246						
Qy	336	EASPTTQENTGDVVIKQINVKQESAFAPHLGTIQADGLSDSVNTNMIKAK-----	1246						
Db	1247	NDVPSVATVGTAGAVSVIVRSKAV---LGLTLTPAVS-VAVTVRLCAPSPSVAVGNNVQ	1302						
Qy	391	VSDGHRGDVDPWVTPRYGSTLTTEAAQ-----LAPPIYPPGEGEAIYFFMDSDFPIAGT	444						
Db	1303	FPDGSVAVVPSNVVPSYTLTVLPASAVPLNVGVASSVLP-----EAI	1353						
Qy	445	GLSVPECT	451						
Db	1354	SVTVPMPT	1360						

```

RESULT 7
US-10-282-122A-46817
; Sequence 46817, Application US/10282122A
; GENERAL INFORMATION:
; APPLICANT: Wang, Liangsu
; APPLICANT: Zamudio, Carlos
; APPLICANT: Malone, Cheryl
; APPLICANT: Haselbeck, Robert
; APPLICANT: Ohlsen, Kari
; APPLICANT: Zyskind, Judith
; APPLICANT: Wall, Daniel
; APPLICANT: Trawick, John
; APPLICANT: Carr, Grant
; APPLICANT: Yamamoto, Robert
; APPLICANT: Forsyth, R.
; APPLICANT: Xu, H.
; TITLE OF INVENTION: Identification of Essential Genes in Microorganisms
; FILE REFERENCE: ELITRA.034A
; CURRENT APPLICATION NUMBER: US/10/282.122A
; CURRENT FILING DATE: 2003-02-20
; PRIOR APPLICATION NUMBER: 60/191,078
; PRIOR FILING DATE: 2000-03-21
; PRIOR APPLICATION NUMBER: 60/206,848
; PRIOR FILING DATE: 2000-05-23
; PRIOR APPLICATION NUMBER: 60/207,727
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: 60/230,335
; PRIOR FILING DATE: 2000-09-06
; PRIOR APPLICATION NUMBER: 60/230,347
; PRIOR FILING DATE: 2000-09-09
; PRIOR APPLICATION NUMBER: 60/242,578
; PRIOR FILING DATE: 2000-10-23
; PRIOR APPLICATION NUMBER: 60/253,625
; PRIOR FILING DATE: 2000-11-27
; PRIOR APPLICATION NUMBER: 60/257,931
; PRIOR FILING DATE: 2000-12-22
; PRIOR APPLICATION NUMBER: 60/267,636
; PRIOR FILING DATE: 2001-02-09
; PRIOR APPLICATION NUMBER: 60/269,308
; PRIOR FILING DATE: 2001-02-16
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 78614
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 46817
; LENGTH: 3930
; TYPE: PRT
; ORGANISM: Bacillus anthracis
; FEATURE:
; NAME/KEY: MISC_FEATURE
; LOCATION: (19)..(19)
; OTHER INFORMATION: X-any amino acid
; FEATURE:
; NAME/KEY: MISC_FEATURE
; LOCATION: (38)..(38)
; OTHER INFORMATION: X-any amino acid
; FEATURE:
; NAME/KEY: MISC_FEATURE
; LOCATION: (3455)..(3455)
; OTHER INFORMATION: X-any amino acid
; FEATURE:
; NAME/KEY: MISC_FEATURE
; LOCATION: (3459)..(3459)
; OTHER INFORMATION: X-any amino acid
; FEATURE:
; NAME/KEY: MISC_FEATURE
; LOCATION: (3552)..(3552)
; OTHER INFORMATION: X-any amino acid
; FEATURE:
; NAME/KEY: MISC_FEATURE
; LOCATION: (3566)..(3566)
; OTHER INFORMATION: X-any amino acid

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US-10-282-122A-46817

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Query Match 3.9%; Score 112; DB 6; Length 3930;
Best Local Similarity 18.8%; Pred NO. 8.3; Mismatches 232; Gaps 34;
Matches 135; Conservative 86;
QY 5 SKDAP-----TNMDGT-----SGAGQLVPEANTAEPISEBPVACAATAA-----43
Db 746 SADSPTFVDTPDGTTFIPNTEFLINGVLQNNADPNVGVPLSPISIPANGSLTSLVSVQVTVTSL 805
QY 44 -----ATAGQVMI-----DPWIMN-----NYVQAPQGEFTI-----70
Db 806 PTQNPTINSSTQYSPILNPGDPPTIETSLSNFTVSTQINLANVVIKVDLTJADYQGPI 865
QY 71 -----SPNTPGD--ILFD-LQLGPHLNP---FLSHLAQMYNGVMGNKVKVLLAGNA 117
Db 866 TYTIALANFGNTANNVVVDLILPGCTTLVPNSIFIGGALQLGADPSAGLOVGTIPAGGF 925
QY 118 FT-AGKIIICIPPGFAAQNISIAQATMF-----PHVI-----ADVRLPE 157
Db 926 TTIVFOIGANSLPSPNPVQNSAVLQYNFIADPNPSPVVRNSASNIIVTTQINTANIVATKL 985
QY 158 IEVPLEDRVNLFH-----NNDNAPTML-----VCMLYTPLRASGSS 196
Db 986 TSTNEADVGDVITYATILTNGNIPASNVTFDIIIPAGTIFLPTVTINGVPIANANPAN 1045
QY 197 GTDPEVIAGRVLTCPSPDFSLFLVP-----PNVEQKTKPFVS---PNLP--LNTLSNS 245
Db 1046 G-----ILGTIGANSRTVAQVVFVVTIPISANPIANQSSTTFQYTYDPSKPAVMQWVASN 1101
QY 246 RYPSLIKSMVSRDHGMVQFQNGR--VTLDGLOCTTPTSASOL-----288
Db 1102 TVQTTINNATITSVKSADKQFANVNDIITYTTTLTNGNTLASNIIVTFDAIPSGTSPIN 1161
QY 289 -CKIRGSVP-HANGGNGYNLTLDGS-----PYHAFESAPITGFPDGLGCDWHMEA 337
Db 1162 SVTVNGTTLNANPANGIAIDPINNANTIISFQGVNSIPNPNI--PNQSTTYQYVV 1219
QY 338 SP-----TTOFNT-----GDVIKQINVKQESAFAPHLGTI 367
Db 1220 NPNLPPASNTLSNVITTOINNATIATKSVNTPNNAIGDIVTYTAVTNWGNIPASATV 1279
QY 368 QADGLS-----DVSNTNMIKLGWVSPVSDGHRGDVDP-----WVPIRYS 409
Db 1280 LTDGLGPGASFIPNSVTINNVSQPG-LDPSLGIHLDDISPECTTFTTFOVKILAIIPSG- 1337
QY 410 TLTEAAQL-----APPIYPGGEAIVFFMSDPPHAGTNGLSVPCITIQEFTVHFVNEQ 464
Db 1338 TLTNNALVNYEYTVNPTETPAVGSTV-----TNTTVPPIV---DATLVINKN 1381
QY 465 APTR-----GEAALLHYLDPDTHRNLGFEKLYPEGEMTCVPNSSGTCGPOTLPINGVFV 517
Db 1382 ASTTFATIGDTITF-----TSVVNTNGTNTANNIVTFDTSIPNGTTFVPNSFKINGVTV 1434

RESULT 8
US-60-427-045-310
; Sequence 310, Application US/60427045
; GENERAL INFORMATION:
; APPLICANT: The Board of Trustees of the University of Arkansas
; APPLICANT: O'Brien, Timothy
; APPLICANT: Beard, John
; APPLICANT: Underwood, Lowell
; TITLE OF INVENTION: CA125 Gene and Its Use for Diagnostic and Therapeutic
; FILE REFERENCE: 022438.44514
; CURRENT APPLICATION NUMBER: US/60/427,045
; CURRENT FILING DATE: 2002-11-15
; NUMBER OF SEQ ID NOS: 314
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 310
; LENGTH: 10431
; TYPE: PRT

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; ORGANISM: Homo sapiens
US-60-427-045-310

Query Match
Best Local Similarity 3.8%; Score 109; DB 7; Length 10431;
Matches 99; Conservative 81; Mismatches 222; Indels 138; Gaps 22;

Qy 5 SKDAPTNMDGTSGAGQLVPEANTAP-ISMPEVAGAATAAATAGQVNMIDPWNNVQA 63
Db 8743 SRTALSIGRTSTG---PAQSTISPELSTETIRISPLTTTCSAETWTPKTHGSCAS 8799
Qy 64 PQGEFTISPNNT---PGDILFDLQGLHPLNPFSLHQAQMYNG-----WVGNNKVK----- 110
Db 8800 SOGTFLLDSSKASWPG---THSAAATHRSPHSGMTTPMSRGPDVSWPSRPSVEKTSPP 8855
Qy 111 -VLLAGNAFTACKII-----ISICIPGCF- 132
Db 8856 SSVLSLSAVTSPSLYSTPSSSHSSPURVTSLFTFVNMKTTMDLTSLEPVTTPSPSMN 8915
Qy 133 --AQNISIAQTM-----FPHVIADVRVLEPI--EV 160
Db 8916 ITSDESLATKATMETEAQIOLSENTAVTQMGTSARQEFYSSYPCLPPEPSKVTSPVVTSS 8975
Qy 161 PLEDVRRNVLFHNNNDNAPMRL---VCMLYTLPRLASGSS---SGTDPFVIAGRVLTCPSPD 214
Db 8976 TIKDIVSTTIPASSEITRIEMESTSTLPTPRETSTSOEIIHSATKPSVTPYKALTSATIE 9035
Qy 215 FSFLPLVP---PNVEOKTKPFSVPLNPLNTLSNSRVPSLIKSMVSRDHQGMVQFQNGR 270
Db 9036 DSMTOVSSSSRGPSDQTMNSQDISSEVITRLSTSPKAESTEMTITQTGSPGATSRGT 9095
Qy 271 VTLDQ---LOGTPT-----SASQLCKIRG-----SVFHANGGNGYNLTELD 310
Db 9096 LTLDTSTTMSGTHSTASQGFHSQMTALMSRTPGDVPWLSHPSEVEEASSAS-FELS--- 9151
Qy 311 GSPYHAFESPAPIGPFDLGECDWHEASPTTQFNTGDVQKINV-----KOESAFAPHLG 365
Db 9152 -SPVMTSSPSVSTLPD---SIHSSLPVTSLLTSGLVKTKTELLGTSEPTSSPPNLS 9206
Qy 366 TQAQGLSDVSNTNMIAKLVWSPVSDGHRGDVDPWPVPRYGSTLTLEAAQLAPPIYPPG 425
Db 9207 SPSAELATTEVTD-TEKLEMTNVVTSYTHESPSSVLA--DSVTTKATSSMGITYPTG 9263

RESULT 9
US-10-282-122A-46163
; Sequence 46163, Application us/10282122A
; GENERAL INFORMATION:
; APPLICANT: Wang, Liangsu
; APPLICANT: Zamudio, Carlos
; APPLICANT: Malone, Cheryl
; APPLICANT: Haselbeck, Robert
; APPLICANT: Ohlsen, Karl
; APPLICANT: Zyskind, Judith
; APPLICANT: Wall, Daniel
; APPLICANT: Trawick, John
; APPLICANT: Carr, Grant
; APPLICANT: Yamamoto, Robert
; APPLICANT: Forsyth, R.
; APPLICANT: Xu, H.
; TITLE OF INVENTION: Identification of Essential Genes in Microorganisms
; FILE REFERENCE: ELITRA.034A
; CURRENT APPLICATION NUMBER: US/10/282,122A
; PRIOR FILING DATE: 2003-02-20
; PRIOR APPLICATION NUMBER: 60/191,078
; PRIOR FILING DATE: 2000-03-21
; PRIOR APPLICATION NUMBER: 60/206,848
; PRIOR FILING DATE: 2000-05-23
; PRIOR APPLICATION NUMBER: 60/207,727
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: 60/230,335
; PRIOR FILING DATE: 2000-09-06
; PRIOR APPLICATION NUMBER: 60/230,347

```

```

; PRIOR FILING DATE: 2000-09-09
; PRIOR APPLICATION NUMBER: 60/242,578
; PRIOR FILING DATE: 2000-10-23
; PRIOR APPLICATION NUMBER: 60/253,625
; PRIOR FILING DATE: 2000-11-27
; PRIOR APPLICATION NUMBER: 60/257,931
; PRIOR FILING DATE: 2000-12-22
; PRIOR APPLICATION NUMBER: 60/267,636
; PRIOR FILING DATE: 2001-02-09
; PRIOR APPLICATION NUMBER: 60/369,308
; PRIOR FILING DATE: 2001-02-16
; Remaining Prior Application data removed - See File wrapper or PALM.
; NUMBER OF SEQ ID NOS: 78614
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 46163
; LENGTH: 1194
; TYPE: PRT
; ORGANISM: Bacillus anthracis
; FEATURE:
; NAME/KEY: MISC_FEATURE
; LOCATION: (3)..(3)
; OTHER INFORMATION: X=any amino acid
US-10-282-122A-46163

Query Match
Best Local Similarity 3.7%; Score 108.5; DB 6; Length 1194;
Matches 130; Conservative 88; Mismatches 257; Indels 249; Gaps 31;

Qy 9 PTNMD-GTSGAGQ-----LVPEAN---TAEPISMPEVAGATA---A 43
Db 213 PTNPIGTVAAGQTTTTFQVQVTSLSPLANGITNEANVTYSQPNTEPPTTTTTPPT 272
Qy 44 ATAGQVNMIDPWNNVQAQGE---FTTSPNNT-----PGDI 79
Db 273 NTSVRTAIVNPKTVSPQVADIGDIITYITPLNPTNGISATNVIIVTDPIPAAGTTFIPNSV 332
Qy 80 LFDLQGLHPLNPFSLHQAQMYNGVGNMKVLLAGNAFTAG-KIILSCIPPGFAAQNIS 138
Db 333 TINGVSPQNIIP-----AGGIQVGTINAGSTTTTFQVQVTSLSPLONGVIRNIG 380
Qy 139 IAQATMPFH---VIADVRVLEPIEVLPE-----DVRNVL-----FINND 174
Db 381 NTTFYQDPDKPTITTTNPTPTTVPINTAIINPIKTAADTAVDIGDIIITYITFNNDG 440
Qy 175 NAPTMRVLCMLYTPLRASGSSGTDPFVIAGRVLTCPSPDFSLFVPPNVQKTKPFSV 234
Db 441 TVPATNVI---FTDSIPAGTTFIPNSVVLNNPNPNPNSPALGIITVGLNPGETKILSEQV 497
Qy 235 -----PNLPLNTLSNSRVPSLI-----KSMVYSRD 259
Db 498 RVTQIPAGGTITNEASTTYTYQDPDTLPPVTTEPTTPTSVTVNTATVNPTKSADRAFAD 557
Qy 260 HGQMVQFQNGRVTLDGQLOGTTPTTSASOLCK--IRGSVF-----HANGNGY 304
Db 558 IGDIIITY-----TISLQNNGTVPATNIILTDPIPGNTTFIPNSVTINGISQPNTPSTGI 612
Qy 305 NLTELDGS-----PYHAF-----ESPAP----- 322
Db 613 TVGTLDPTEAATISFQVQVIVSPPHGLVENOGTVSFTHIVNPNPEPVTKTSTPKTETAV 672
Qy 323 ---IGFP-----DLGECDDWHEASPTTQFNTGDVQKINV-----KOESAFAPHL 364
Db 673 NTIISTPTKADQLADIGD-----TIITYTIFRNGGVTPATNVTLDISTSGTTFIPDS 727
Qy 365 GTIQADGLSDVSNTNMIAKLVWSPVSDGHRGDVDPWPVPRYGSTLTLEAAQLAPPIYPP 424
Db 728 VTI--NGVTSFGSNPALGQLGTVA-----VGETKITYQVLVTFNFP 768
Qy 425 GFGEAIVFMSDFPIAHGTNGLSVF--CTIQEFVTHVNEQAPTRGAAALLHYLDPDTH 482
Db 769 ---NGIIENQASFTYQYQPNPEPVTSTTPTPNVNSINPNPTTKSADLQIAD----- 821
Qy 483 RNLGEFKLYPEGFMT--CVPNSSSGTGQTLPTINGVF----VFVSWVSRYQLK-----PVG 532

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Db 822 --IGDLVTFVTQNGKGTVPATNVTVQDSLPGQSVFVPGVINGISQLGENPEIGIPG 879
QY 533 TAPG 536
Db 880 TVNP 883

RESULT 10
US-10-243-243A-8
; Sequence 8, Application US/10243243A
; GENERAL INFORMATION:
; APPLICANT: Lloyd, Kenneth O.
; APPLICANT: Yin, Beatrice W.T.
; TITLE OF INVENTION: Nucleic Acid Sequence Encoding Ovarian Antigen, CA125, and Uses
; FILE REFERENCE: 649-B
; CURRENT APPLICATION NUMBER: US/10/243,243A
; CURRENT FILING DATE: 2002-09-19
; PRIOR APPLICATION NUMBER: US 10/142,515
; PRIOR FILING DATE: 2002-05-09
; PRIOR APPLICATION NUMBER: PCT/US02/14768
; PRIOR FILING DATE: 2002-05-09
; PRIOR APPLICATION NUMBER: US 60/290,480
; PRIOR FILING DATE: 2001-05-11
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 8
; LENGTH: 5935
; TYPE: PRT
; ORGANISM: Homo sapiens
; NAME/KEY: MISC_FEATURE
; LOCATION: (1)..(5935)
; OTHER INFORMATION: Amino acid sequence of MUC16B
US-10-243-243A-8

Query Match 3.7%; Score 108; DB 6; Length 5935;
Best Local Similarity 18.3%; Pred. No. 34;
Matches 99; Conservative 80; Mismatches 223; Indels 138; Gaps 22;

QY 5 SKDAPTNMDGTSGAGQLVPEANTAE-ISMPEVAGATAAATAGQVNMIDPWIMNNYVQA 63
Db 431 SRTEALSLGRSTPG---PAQSTISPEISTETITRISTPLTTTGSABMTTPKTHGSGAS 487
QY 64 PQGEFTISPNNT---PGDILFDLQGLPHLPFLSHLAQMYNG-----WVGNMKVK----- 110
Db 488 SQGTFTLDTSSRASWPG---THSAATHRSPHSGMTTPMSRGPEVSWPRSPVEKTSPP 543
QY 111 -VLLAGNATAGKII-----ISCIPPGF- 132
Db 544 SSLVLSAVTSPSPLYSTPSESSHSPRLVTSLFTPVMMKTTDMLDTSLEPVTSPSPMN 603
QY 133 --AAONISIAQATM-----PPhVIADVRVLEPI--EV 160
Db 604 ITSDESLSATSKATMETEATQLSSENTAVTQMTGISARQEFYSSYPGLPEPSKVTSPPVVTSS 663
QY 161 PLEDVRNVLFHNDNAPTMR---VCMLYTPLRASGSS---SGTDPEVIAGRVLTCPSPD 214
Db 664 TIKDIVSTTIPASSEITRIEMESTSLTPTPRETSTSQEIHSAKTPSTVPYKALTSATIE 723
QY 215 FSFLFLVP-----PNVEQKTKPFSVPNPLNTLSNSRVPSLIKSMVSRDHQWQVQNGR 270
Db 724 DSNMTQVMSSSRGSPDQSTMSQDISIEVITRLTSPKIKTESTEMTITTTQSGPATSRGT 783
QY 271 VTLDGQ---LOGTTPT-----SASQCKIRG-----SVFHANGNGYNLTELD 310
Db 784 LTLDSTTFMSGTHSTASQGFHSQMTALMSRTPGEPVWLSHPSEVEASAS--FSL- 839
QY 311 GSPYHAFESPAPTFGPDLCGDWHMEASPTQNTGDVIKQINV-----KQESAFAPHLG 365
Db 840 -SPVMTSSSPVSTLPD-----SIHSSLPVTSLLTSGLVKTKTELLGTSSEPETSSPNLS 894
QY 366 TIQADGLSDVSVNTNMIKLGWSPVSDGHRGVDVPWIPRYGSTLTLEAAQLAPPIYPPG 425

Db 895 STSAEILLATTEVTTD--TEKLEMTNVVTSGYTHESPSSVLA--DSVTTTKATSSMGITPTG 951
RESULT 11
US-10-243-242B-8
; Sequence 8, Application US/10243242B
; GENERAL INFORMATION:
; APPLICANT: Lloyd, Kenneth O.
; APPLICANT: Yin, Beatrice W.T.
; TITLE OF INVENTION: Nucleic Acid Sequence Encoding Ovarian Antigen, CA125, and US
; FILE REFERENCE: 649-B
; CURRENT APPLICATION NUMBER: US/10/243,242B
; CURRENT FILING DATE: 2003-01-31
; PRIOR APPLICATION NUMBER: US 10/142,515
; PRIOR FILING DATE: 2002-05-09
; PRIOR APPLICATION NUMBER: PCT/US02/14768
; PRIOR FILING DATE: 2002-05-09
; PRIOR APPLICATION NUMBER: US 60/290,480
; PRIOR FILING DATE: 2001-05-11
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 8
; LENGTH: 5935
; TYPE: PRT
; ORGANISM: Homo sapiens
; NAME/KEY: MISC_FEATURE
; LOCATION: (1)..(5935)
; OTHER INFORMATION: Amino acid sequence of MUC16B
US-10-243-242B-8

Query Match 3.7%; Score 108; DB 6; Length 5935;
Best Local Similarity 18.3%; Pred. No. 34;
Matches 99; Conservative 80; Mismatches 223; Indels 138; Gaps 22;

QY 5 SKDAPTNMDGTSGAGQLVPEANTAE-ISMPEVAGATAAATAGQVNMIDPWIMNNYVQA 63
Db 431 SRTEALSLGRSTPG---PAQSTISPEISTETITRISTPLTTTGSABMTTPKTHGSGAS 487
QY 64 PQGEFTISPNNT---PGDILFDLQGLPHLPFLSHLAQMYNG-----WVGNMKVK----- 110
Db 488 SQGTFTLDTSSRASWPG---THSAATHRSPHSGMTTPMSRGPEVSWPRSPVEKTSPP 543
QY 111 -VLLAGNATAGKII-----ISCIPPGF- 132
Db 544 SSLVLSAVTSPSPLYSTPSESSHSPRLVTSLFTPVMMKTTDMLDTSLEPVTSPSPMN 603
QY 133 --AAONISIAQATM-----PPhVIADVRVLEPI--EV 160
Db 604 ITSDESLSATSKATMETEATQLSSENTAVTQMTGISARQEFYSSYPGLPEPSKVTSPPVVTSS 663
QY 161 PLEDVRNVLFHNDNAPTMR---VCMLYTPLRASGSS---SGTDPEVIAGRVLTCPSPD 214
Db 664 TIKDIVSTTIPASSEITRIEMESTSLTPTPRETSTSQEIHSAKTPSTVPYKALTSATIE 723
QY 215 FSFLFLVP-----PNVEQKTKPFSVPNPLNTLSNSRVPSLIKSMVSRDHQWQVQNGR 270
Db 724 DSNMTQVMSSSRGSPDQSTMSQDISIEVITRLTSPKIKTESTEMTITTTQSGPATSRGT 783
QY 271 VTLDGQ---LOGTTPT-----SASQCKIRG-----SVFHANGNGYNLTELD 310
Db 784 LTLDSTTFMSGTHSTASQGFHSQMTALMSRTPGEPVWLSHPSEVEASAS--FSL- 839
QY 311 GSPYHAFESPAPTFGPDLCGDWHMEASPTQNTGDVIKQINV-----KQESAFAPHLG 365
Db 840 -SPVMTSSSPVSTLPD-----SIHSSLPVTSLLTSGLVKTKTELLGTSSEPETSSPNLS 894
QY 366 TIQADGLSDVSVNTNMIKLGWSPVSDGHRGVDVPWIPRYGSTLTLEAAQLAPPIYPPG 425
Db 895 STSAEILLATTEVTTD--TEKLEMTNVVTSGYTHESPSSVLA--DSVTTTKATSSMGITPTG 951

RESULT 12

US-10-243-243B-8
; Sequence 8, Application US/10243243B
; GENERAL INFORMATION:
; APPLICANT: Lloyd, Kenneth O.
; APPLICANT: Yin, Beatrice W.T.
; TITLE OF INVENTION: Nucleic Acid Sequence Encoding Ovarian Antigen, CA125, and Uses Thereof
; FILE REFERENCE: 649-B
; CURRENT APPLICATION NUMBER: US/10/243,243B
; CURRENT FILING DATE: 2003-01-31
; PRIOR APPLICATION NUMBER: US 10/142,515
; PRIOR FILING DATE: 2002-05-09
; PRIOR APPLICATION NUMBER: PCT/US02/14768
; PRIOR FILING DATE: 2002-05-09
; PRIOR APPLICATION NUMBER: US 60/290,480
; PRIOR FILING DATE: 2001-05-11
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 8
; LENGTH: 5935
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MISC_FEATURE
; LOCATION: (1)..(5935)
; OTHER INFORMATION: Amino acid sequence of MUC16B
US-10-243-243B-8

Query Match 3.7%; Score 108; DB 6; Length 5935;
Best Local Similarity 18.3%; Pred. No. 34;
Matches 99; Conservative 80; Mismatches 223; Indels 139; Gaps 22;
QY 5 SKDAPNTMDGTGAGQLVPEANTAEPI-SMEPVAGATAAATAGQVNMIDPIMNYYQA 63
Db 431 SRTEALSLGRTSPG---PAQSTISPEISTEITRTSTPLTTGSAEMITPKTGSGAS 487
QY 64 PGEFTISPNT---PGDILFDLQGLHNPFLSHLAQYNG-----WVGNMKVK----- 110
Db 488 SGTFTLDTSSRASWPG---THSAATHRSPHSGMTTPMSRGPEDEVSPSRPVSKEVTSPP 543
QY 111 -VLLAGNATAGKII-----ISCIPPGF- 132
Db 544 SSLVLSUATVSPPLXSTPSESSHSPRLRVTSLFTPVMMKTTDMLDTSLEPVTSPPSMN 603
QY 133 --AAQNISIAQATM-----FPHVIADVRLVLEPI--EV 160
Db 604 ITSDESLSATSKATMETEATQIOLSENTAVTQGTISARQEFYSSYPGLPEPSKVTSPPVVTSS 663
QY 161 PLEDVRNVLPHNDNAPTMRLL---VCMLYTPLRASGSS---SCTDPFVIAGRVLTCPSPD 214
Db 664 TIKDIVSTTIPASSEIRIEMESTLTPPTRETSTSQEIHSAKPKSTVPYKALTSATIE 723
QY 215 FSELFLVP---PNVEQKTKPFVNPVLPLNTLSNRSVPSLIKSMVSRDHGQVQFONGR 270
Db 724 DSWTQWSSSRGSPSPQOSTMSQDISTEIVTRLSTSPKIKTESTEMTITQTGSPCATSRGT 783
QY 271 VTLDGO---LQGTTP-----SASQLCKIRG-----SVFHANGNGYNLTELD 310
Db 784 LTLDSTTFNSGTHSTASQGFHSQMTALMSRTPGEVPWLSHPVSVEEASSAS-FSLSS--- 839
QY 311 GSPYHAFESPAPGTFDPLGDCDHMEASPTQNTQDGVIKQINV-----KQESAFAPHLG 365
Db 840 -SPVMTSSSPVSSVSTLPD-----SIHSSSLPVTSLTSLGLVKTTELLOSTSSPPTSSPPNLS 894
QY 366 TIOADGLSDYSVNTNMIKLGWSPVSDGHRGDVDPWVPIRYGSTLTETAAQLAPPIYPPG 425
Db 895 STSAEILLATVETVD--TEKLEMNIVVTSGYTHESPSSVLA--DSVTIKATSSMGITYPTG 951

RESULT 13

US-10-282-122A-66108
; Sequence 66108, Application US/10282122A
; GENERAL INFORMATION:

; APPLICANT: Wang, Liangsu
; APPLICANT: Zamudio, Carlos
; APPLICANT: Malone, Cheryl
; APPLICANT: Haselbeck, Robert
; APPLICANT: Onlsen, Karl
; APPLICANT: Zyskind, Judith
; APPLICANT: Wall, Daniel
; APPLICANT: Trawick, John
; APPLICANT: Carr, Grant
; APPLICANT: Yamamoto, Robert
; APPLICANT: Forsyth, R.
; APPLICANT: Xu, H.
; TITLE OF INVENTION: Identification of Essential Genes in Microorganisms
; FILE REFERENCE: ELITRA.034A
; CURRENT APPLICATION NUMBER: US/10/282,122A
; CURRENT FILING DATE: 2003-02-20
; PRIOR APPLICATION NUMBER: 60/191,078
; PRIOR FILING DATE: 2000-03-21
; PRIOR APPLICATION NUMBER: 60/206,848
; PRIOR FILING DATE: 2000-05-23
; PRIOR APPLICATION NUMBER: 60/207,727
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: 60/230,335
; PRIOR FILING DATE: 2000-09-06
; PRIOR APPLICATION NUMBER: 60/230,347
; PRIOR FILING DATE: 2000-09-09
; PRIOR APPLICATION NUMBER: 60/242,578
; PRIOR FILING DATE: 2000-10-23
; PRIOR APPLICATION NUMBER: 60/253,625
; PRIOR FILING DATE: 2000-11-27
; PRIOR APPLICATION NUMBER: 60/257,931
; PRIOR FILING DATE: 2000-12-22
; PRIOR APPLICATION NUMBER: 60/267,636
; PRIOR FILING DATE: 2001-02-09
; PRIOR APPLICATION NUMBER: 60/269,308
; PRIOR FILING DATE: 2001-02-16
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 78614
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 66108
; LENGTH: 2703
; TYPE: PRT
; ORGANISM: Neisseria meningitidis
US-10-282-122A-66108
Query Match 3.7%; Score 107.5; DB 6; Length 2703;
Best Local Similarity 21.9%; Pred. No. 12;
Matches 109; Conservative 59; Mismatches 177; Indels 153; Gaps 27;
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QY 59 NVYQAPQGEFTISPNTPGDILFDLQGLPHL--NPFL-----SHLAQYNG 102
Db 119 QYAFDVGNRGAILNNSRNT--QTQLGWIQGNPWLARGEARVVVQNINSHSSOL-NG 175
QY 103 W-VGNMKVKVLLA-----GNAFTAGKIICIPPGFAAQNIS---IAQATMFPHV 148
Db 176 YIEVGRRRAEVVIANPAGIAVNGGGFINASRATLTITAAQYQAGDLGSGFKIRQNV---V 232
QY 149 IA----DVRVLEPIEVPLEDVRNVLPHNDNAPTMRLLVCMLYTPLRASGSSSGTDPFVIA 204
Db 233 IAGHGLDAR-----DTDYTRILSYHSHKIDAPVW-----GQDVRVVA 268
QY 205 GRYLTCPSPDFSLFVLPPNVEQKTKPFSPVN---LPLNLTLSNRSVPSLI--KSMVSS-- 257
Db 269 GQNDVAATGDAHSPII--NNAANTSNNTANNNGTHIPLFAIDTGKLGGMAYANKITLISV 326
QY 258 -----RDHGO-MVQFONGRVTLTGQLOGTTPTTSASQLCKIRGSVFHANGN---GYNLTE 308
Db 327 EQAGIRNOGQWFASAGNVAVNAEGLVNT-----GMIAATGENHAVSLHARN 373

Search completed: March 10, 2003, 19:04:16
Job time : 48 secs

GenCore version 5.1.3
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OM protein - protein search, using sw model

Run on: March 10, 2003, 18:26:21 ; Search time 143 Seconds
(without alignments)
2457.200 Million cell updates/sec

Title: US-09-926-799-1
Perfect score: 2896
Sequence: 1 MMASKADPTNMDTSGAGQ.....YQLKPVGTGACRLGIRRS 545

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 4569144 seqs, 644733110 residues

Total number of hits satisfying chosen parameters: 4569144

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database : Pending_Patents_AA_Main:*

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- 3: /cgn2_6/ptodata/2/paa/US07_COMB.pep.*
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- 5: /cgn2_6/ptodata/2/paa/US081_COMB.pep.*
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- 10: /cgn2_6/ptodata/2/paa/US086_COMB.pep.*
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- 13: /cgn2_6/ptodata/2/paa/US089_COMB.pep.*
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- 25: /cgn2_6/ptodata/2/paa/US101_COMB.pep.*
- 26: /cgn2_6/ptodata/2/paa/US102_COMB.pep.*
- 27: /cgn2_6/ptodata/2/paa/US60_COMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Match	Length	ID	Description
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2	2605.5	90.0	544	6	US-08-273-257-8
3	1979	68.3	544	23	US-09-926-799-4
4	1977.5	68.3	546	23	US-09-926-799-3
5	1950	67.3	530	3	US-07-696-454-3
6	1950	67.3	530	3	US-07-941-365C-3

7	1950	67.3	530	3	US-07-941-365E-3	Sequence 3, Appli
8	1950	67.3	530	7	US-08-386-365-3	Sequence 3, Appli
9	1950	67.3	530	8	US-08-486-049-3	Sequence 3, Appli
10	1938	66.9	530	23	US-09-926-799-2	Sequence 2, Appli
11	1225	42.3	540	23	US-09-926-799-7	Sequence 7, Appli
12	1184.5	40.9	548	6	US-08-273-257-5	Sequence 5, Appli
13	1178.5	40.7	548	23	US-09-926-799-6	Sequence 6, Appli
14	1176.5	40.6	535	6	US-08-273-257-11	Sequence 11, Appli
15	1174.5	40.6	535	23	US-09-926-799-8	Sequence 8, Appli
16	1172.5	40.5	542	23	US-09-926-799-9	Sequence 9, Appli
17	1157.5	40.0	539	23	US-09-926-799-5	Sequence 5, Appli
18	1154.5	39.9	550	23	US-09-926-799-10	Sequence 10, Appli
19	1013	35.0	541	23	US-09-926-799-11	Sequence 11, Appli
20	316	10.9	576	21	US-09-791-537-68473	Sequence 68473, A
21	315	10.9	576	21	US-09-791-537-92673	Sequence 92673, A
22	311	10.7	576	21	US-09-791-537-25489	Sequence 25489, A
23	289	10.0	861	21	US-09-791-537-61752	Sequence 61752, A
24	287.5	9.9	691	21	US-09-791-537-143497	Sequence 143497, A
25	285	9.8	626	1	PCT-US00-15750-7	Sequence 7, Appli
26	285	9.8	770	21	US-09-791-537-146166	Sequence 146166, A
27	282.5	9.8	863	21	US-09-791-537-143865	Sequence 143865, A
28	277	9.6	565	21	US-09-791-537-110580	Sequence 110580, A
29	276	9.5	547	19	US-09-521-738-4	Sequence 4, Appli
30	276	9.5	671	19	US-09-521-738-2	Sequence 2, Appli
31	272.5	9.4	669	20	US-09-617-594-2	Sequence 2, Appli
32	272.5	9.4	669	20	US-09-617-594A-2	Sequence 2, Appli
33	272	9.4	623	1	PCT-US00-15750-4	Sequence 4, Appli
34	272	9.4	668	20	US-09-617-594-4	Sequence 4, Appli
35	272	9.4	668	20	US-09-617-594A-4	Sequence 4, Appli
36	269	9.3	623	1	PCT-US00-15750-2	Sequence 2, Appli
37	262.5	9.1	622	1	PCT-US00-15750-6	Sequence 6, Appli
38	149.5	5.2	878	21	US-09-791-537-151872	Sequence 151872, A
39	147	5.1	878	21	US-09-791-537-151869	Sequence 151869, A
40	143.5	5.0	878	21	US-09-791-537-13397	Sequence 13397, A
41	142.5	4.9	878	21	US-09-791-537-13415	Sequence 13415, A
42	137.5	4.7	912	21	US-09-791-537-79633	Sequence 79633, A
43	135.5	4.7	879	21	US-09-791-537-76207	Sequence 76207, A
44	128.5	4.4	613	21	US-09-791-537-109700	Sequence 109700, A
45	128	4.4	889	21	US-09-791-537-42411	Sequence 42411, A

ALIGNMENTS

RESULT 1
US-09-926-799-1
; Sequence 1, Application US/09926799
; GENERAL INFORMATION:
; APPLICANT: TAKEDA, NAKAZU
; APPLICANT: NATORI, KATSURO
; APPLICANT: MIYAMURA, TATSUO
; APPLICANT: KAMATA, KUNIO
; APPLICANT: SATO, TOSHINORI
; APPLICANT: SATO, SEIYA
; TITLE OF INVENTION: Detection kit for SRSV
; FILE REFERENCE: 217039US0XPT
; CURRENT APPLICATION NUMBER: US/09/926,799
; CURRENT FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: JP 11175928
; PRIOR FILING DATE: 1999-06-22
; PRIOR APPLICATION NUMBER: JP 11-175928
; PRIOR FILING DATE: 1999-06-22
; NUMBER OF SEQ ID NOS: 34
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
; LENGTH: 545
; TYPE: PRT
; ORGANISM: ARTIFICIAL SEQUENCE
; FEATURE:
; OTHER INFORMATION: SYNTHETIC PEPTIDE
US-09-926-799-1

Query Match 100.0% Score 2896; DB 23; Length 545;

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; REFERENCE/DOCKET NUMBER: DHHS Ref. No. E-163-94/0
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 543-9600
; TELEFAX: (415) 543-5043
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 544 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-273-257-8

Query Match 90.0%; Score 2605.5; DB 6; Length 544;
Best Local Similarity 89.2%; Pred. No. 1e-241;
Matches 486; Conservative 24; Mismatches 34; Indels 1; Gaps 1;

QY 1 MMASKDAPTNMDGTSGAGQLVPEANTAEPISEMPVAGAATAAATACQVNMIDPWIMNNY 60
Db 1 MMASKDAPTNMDGTSGAGQLVPEANTAEPISEMPVAGAATAAATACQVNMIDPWIMNSY 60
QY 61 VQAPQGETTISPNTPGDILDLQGLPHLPFLSHLAQMYNGWGNMKVKVLLAGNAFTA 120
Db 61 VQAPQGETTISPNTPGDILDLQGLPHLPFLSHLAQMYNGWGNMKVKVLLAGNAFTA 120
QY 121 GKIIISCIPPGFAAQNISIAQATMFPHVIADRVLEPIEVPLEDVRNVLFHNNDAPTMR 180
Db 121 GKIIISCIPPGFAAQNISIAQATMFPHVIADRVLEPIEVPLEDVRNVLFHNNDAPTMR 180
QY 181 LVCMLYTPLRASGSSGTDPEVIAGRVLTCPSPDFSEFLVPPNVEQTKPFVSNPLPLN 240
Db 181 LVCMLYTPLRASGSSGTDPEVIAGRVLTCPSPDFSEFLVPPNVEQTKPFVSNPLPLN 240
QY 241 TLSNRPVSLIKSMVSRDHQGMVQFNGRVTLDGQLQGTTPTSASQLCKIRGSVFHANG 300
Db 241 TLSNRPVSLIKSMVSRDHQGMVQFNGRVTLDGQLQGTTPTSASQLCKIRGSVFHANG 300
QY 301 GNGYNLTDELGSPYHAFESPAPIGFPDLGECDDHWEASPTTQFNTGVDVIKQINVKQESAF 360
Db 301 GNGYNLTDELGSPYHAFESPAPIGFPDLGECDDHWEASPTTQFNTGVDVIKQINVKQESAF 360
QY 361 APHLGTIOADGLSDVSVNTMIKLGWSPVSDGHRGVDVDPWIPRYGSTLTTEAAQLAPP 420
Db 361 APHLGTIOADGLSDVSVNTMIKLGWSPVSDGHRGVDVDPWIPRYGSTLTTEAAQLAPP 420
QY 421 IYPPGFGAIVFFMSDFPIAHGTNGLSVPCITPQEFVTHFVNEQAPTRGEAALLHYLDPD 480
Db 421 IYPPGFGAIVFFMSDFPIAHGTNGLSVPCITPQEFVTHFVNEQAPTRGEAALLHYLDPD 480
QY 481 THRNLGKFLYPEGFMTCVPNNSGTGPQTLPLNGVVFVSVWSRYQLKPVGTAGPACRL 540
Db 481 THRNLGKFLYPEGFMTCVPNNSGTGPQTLPLNGVVFVSVWSRYQLKPVGTAGPACRL 540
QY 541 GIRRS 545
Db 541 GIRRS 545

RESULT 2
US-08-273-257-8
; Sequence 8, Application US/08273257
; GENERAL INFORMATION:
; APPLICANT: LEW, Judy F.
; APPLICANT: GREEN, Kim Y.
; APPLICANT: VALDESUSO, Jose
; TITLE OF INVENTION: Calicivirus capsid genes and their uses
; NUMBER OF SEQUENCES: 36
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Townsend and Townsend Kourie and Crew
; STREET: Steuart Street Tower, One Market Plaza
; CITY: San Francisco
; STATE: California
; COUNTRY: US
; ZIP: 94105-1493
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/273,257
; FILING DATE: 11-JUL-1994
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Bastian, Kevin L.
; REGISTRATION NUMBER: 34,774
; REFERENCE/DOCKET NUMBER: 15280-209
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; REFERENCE/DOCKET NUMBER: DHHS Ref. No. E-163-94/0
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 543-9600
; TELEFAX: (415) 543-5043
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 544 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-273-257-8

Query Match 90.0%; Score 2605.5; DB 6; Length 544;
Best Local Similarity 89.2%; Pred. No. 1e-241;
Matches 486; Conservative 24; Mismatches 34; Indels 1; Gaps 1;

QY 1 MMASKDAPTNMDGTSGAGQLVPEANTAEPISEMPVAGAATAAATACQVNMIDPWIMNNY 60
Db 1 MMASKDAPTNMDGTSGAGQLVPEANTAEPISEMPVAGAATAAATACQVNMIDPWIMNSY 60
QY 61 VQAPQGETTISPNTPGDILDLQGLPHLPFLSHLAQMYNGWGNMKVKVLLAGNAFTA 120
Db 61 VQAPQGETTISPNTPGDILDLQGLPHLPFLSHLAQMYNGWGNMKVKVLLAGNAFTA 120
QY 121 GKIIISCIPPGFAAQNISIAQATMFPHVIADRVLEPIEVPLEDVRNVLFHNNDAPTMR 180
Db 121 GKIIISCIPPGFAAQNISIAQATMFPHVIADRVLEPIEVPLEDVRNVLFHNNDAPTMR 180
QY 181 LVCMLYTPLRASGSSGTDPEVIAGRVLTCPSPDFSEFLVPPNVEQTKPFVSNPLPLN 240
Db 181 LVCMLYTPLRASGSSGTDPEVIAGRVLTCPSPDFSEFLVPPNVEQTKPFVSNPLPLN 240
QY 241 TLSNRPVSLIKSMVSRDHQGMVQFNGRVTLDGQLQGTTPTSASQLCKIRGSVFHANG 300
Db 241 TLSNRPVSLIKSMVSRDHQGMVQFNGRVTLDGQLQGTTPTSASQLCKIRGSVFHANG 300
QY 301 GNGYNLTDELGSPYHAFESPAPIGFPDLGECDDHWEASPTTQFNTGVDVIKQINVKQESAF 360
Db 301 GNGYNLTDELGSPYHAFESPAPIGFPDLGECDDHWEASPTTQFNTGVDVIKQINVKQESAF 360
QY 361 APHLGTIOADGLSDVSVNTMIKLGWSPVSDGHRGVDVDPWIPRYGSTLTTEAAQLAPP 420
Db 361 APHLGHVQADNLS-AGANTDLIVSLWSLSPVSDQHRHDVDPWIPRYGSSLTTEAAQLAPP 419
QY 421 IYPPGFGAIVFFMSDFPIAHGTNGLSVPCITPQEFVTHFVNEQAPTRGEAALLHYLDPD 480
Db 420 IYPPGFGAIVFFMSDFPVVSGVNGMRIPCTLPQEVVAHFVNEQAPTRGEAALLHYVDDP 479
QY 481 THRNLGKFLYPEGFMTCVPNNSGTGPQTLPLNGVVFVSVWSRYQLKPVGTAGPACRL 540
Db 480 THRNLGKFLYPEGFMTCVPNNSGSGGTLPINGVFTFVSVWSRYQLKPVGTAGPARRL 539
QY 541 GIRRS 545
Db 540 GIRRS 544

RESULT 3
US-09-926-799-4
; Sequence 4, Application US/09926799
; GENERAL INFORMATION:
; APPLICANT: TAKEDA, NAKAZU
; APPLICANT: NATORI, RATSURO
; APPLICANT: MIYAMURA, TATSUO
; APPLICANT: KAMATA, KUNIO
; APPLICANT: SATO, TOSHINORI
; APPLICANT: SATO, SEIYA
; TITLE OF INVENTION: Detection Kit for SRSV
; FILE REFERENCE: 217039USOXPT
; CURRENT APPLICATION NUMBER: US/09/926,799
; CURRENT FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: JP 11175928
; PRIOR FILING DATE: 1999-06-22
```

; PRIOR APPLICATION NUMBER: JP 11-175928
; PRIOR FILING DATE: 1999-06-22
; NUMBER OF SEQ ID NOS: 34
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
; LENGTH: 544
; TYPE: PRT
; ORGANISM: ARTIFICIAL SEQUENCE
; FEATURE:
; OTHER INFORMATION: SYNTHETIC PEPTIDE
US-09-926-799-4

Query Match 68.3%; Score 1979; DB 23; Length 544;
Best Local Similarity 66.8%; Pred. No. 3.3e-181;
Matches 368; Conservative 68; Mismatches 101; Indels 14; Gaps 6;

QY 1 MMASKDAPTNMDGTSAGAGQLVPEANTAEPTISMEPVAGAAATAAGQVNMIDPWIMNNY 60
DB 1 MMASKDAPTSADGATGAGQLVPEVNTADPIDPVAGSSTALATAGQVNLIDPWIIINF 60
QY 61 VOAPOGEFTISPNNTPGDILFDLQGLPHLPFLSHLAQWNGWGNMKVKVLLAGNAFTA 120
DB 61 VOAPOGEFTISPNNTPGDILFDLQGLPHLPFLSHLSQWNGWGNMVRVVLGNAFTA 120
QY 121 GKIIISCIPIPPGAAQNIISIAQATMPHVIADVRVLEPIEVLPLEDRNVLFFHNDNAPTMR 180
DB 121 GKVIICCVPPGQSRSLTIAQATLPFHVIADVRTLDPEVPLEDRNVLHNNDOPTMR 180
QY 181 LVCMLYTLRASGSSGTDPFVIAGRVLTCPSPDFSEFLFVPPNVYEQTKPFSVNLPLN 240
DB 181 LVCMLYTLRTGGAGSGGDSFVAVAGRVLTCPGPDFNFVLPVPTVEQTRPTVNPILK 240
QY 241 TILSNRVPRLIKSMVSRDHQWQVQFQNGRVTLQGLQCTTPTSAQCKIRGVSFPHANG 300
DB 241 YLSNRIENPIEGMSLSDPTQNVQFQNGRCTIDQPLGTTFVSVSQLCKFGRIT--TSG 298
QY 301 GNGYNLTLDGSPYHAFESPAPIGPFDLGECDWHMEAS--PTQFNTGQDVIKQINVKQES 358
DB 299 QRVNLTELDGSPFAFAAPAGPAGPDLGSCDWHIEMSKIPNSSTONNPVITNSVKPNQ 358
QY 359 AFAPHLGTTQADGLSDVSVNTNMIAGLVSPVSDGHRGDDVPWIPRYGSLTTEAAQLA 418
DB 359 QVPHLSLITLD--ENVSSGGDYICTIQWTSPPSDSGGANTFWKIPDYGSSLASAQLA 416
QY 419 PPIYPGGEAEIVFMSDFPIAHGTNGLS---VPCITPOEFVTHFVNEQAPTRGEAALL 474
DB 417 PAVYPPGNEVLYVEMASIP---GFNQSGSPNLVFCLLPQOEYITHFISEQAPIQGEAALL 473
QY 475 HYLDPDTHRNLFGEFKLYPEGEMTCVPNSSGGTGQPTLPINGVFVSVWSRFLKPKVGTA 534
DB 474 HYVDPDTNRNLGFEKLYPGGYLTCVPNSSSTGPQOLPLDGVFVFSWVSRYOLKPKVGTA 533
QY 535 GPA-CRLGIRR 544
DB 534 GPARGRLGVRR 544

RESULT 4
US-09-926-799-3
; Sequence 3, Application US/09926799
; GENERAL INFORMATION:
; APPLICANT: TAKEDA, NAOKAZU
; APPLICANT: NATORI, KATSURO
; APPLICANT: MIYAMURA, TATSUO
; APPLICANT: KAWATA, KUNIO
; APPLICANT: SATO, TOSHINORI
; APPLICANT: SATO, SEIYA
; TITLE OF INVENTION: Detection kit for SRSV
; FILE REFERENCE: 217039US0XPC
; CURRENT APPLICATION NUMBER: US/09/926,799
; CURRENT FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: JP 11175928
; PRIOR FILING DATE: 1999-06-22

; PRIOR APPLICATION NUMBER: JP 11-175928
; PRIOR FILING DATE: 1999-06-22
; NUMBER OF SEQ ID NOS: 34
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
; LENGTH: 546
; TYPE: PRT
; ORGANISM: ARTIFICIAL SEQUENCE
; FEATURE:
; OTHER INFORMATION: SYNTHETIC PEPTIDE
US-09-926-799-3

Query Match 68.3%; Score 1977.5; DB 23; Length 546;
Best Local Similarity 66.6%; Pred. No. 4.6e-181;
Matches 367; Conservative 76; Mismatches 95; Indels 13; Gaps 7;

QY 1 MMASKDAPTNMDGTSAGAGQLVPEANTAEPTISMEPVAGAAATAAGQVNMIDPWIMNNY 60
DB 1 MMASKDAPQSDAGAGAGQLVPEVNTADPLPMEPVAGPTTAVATAGQVNMIDPWIVNNF 60
QY 61 VOAPOGEFTISPNNTPGDILFDLQGLPHLPFLSHLAQWNGWGNMKVKVLLAGNAFTA 120
DB 61 VOSPOGEFTISPNNTPGDILFDLQGLPHLPFLSHLSQWNGWGNMVRILLAGNAFTA 120
QY 121 GKIIISCIPIPPGAAQNIISIAQATMPHVIADVRVLEPIEVLPLEDRNVLFFHNDNAPTMR 180
DB 121 GKIIICCVPPGPTSSSLTIAQATLPFHVIADVRTLEPIEMPLEDRNVLHYTNDNQPTMR 180
QY 181 LVCMLYTLRASGSSGTDPFVIAGRVLTCPSPDFSEFLFVPPNVYEQTKPFSVNLPLN 240
DB 181 LVCMLYTLRTGGAGSGGDSFVAVAGRVLTAPSSDFSLFLVLPPTIQKTRAEVTPNPLQ 240
QY 241 TILSNRVPRLIKSMVSRDHQWQVQFQNGRVTLQGLQCTTPTSAQCKIRGVSFPHANG 300
DB 241 TILSNRFPRLIQMILSPDASQVQVQFQNGRCLIDGQLGTTTATSCQLFVRGKI--NQG 298
QY 301 GNGYNLTLDGSPYHAFESPAPIGPFDLGECDWHMEASPT--TQFNTGQDVIKQINVKOE-S 358
DB 299 ARTNLNTEVDGKPFMAFADSPAPVGPFDGCKDWHMRISKTPNNTSSGDPMSRVSQVNTVQ 358
QY 359 AFAPHLGTTQADGLSDVSVNTNMIAGLVSPVSDGHRGDDVPWIPRYGSLTTEAAQLA 418
DB 359 GFVPHLGSQFDFVFNHPTG-DYIGTIEWISQSTPPTGTDINLWEIPDYGSSLSQAANLA 417
QY 419 PPIYPGGEAEIVFMSDFPIAHGTNGLS---VPCITPOEFVTHFVNEQAPTRGEAALL 474
DB 418 PVVPPGGEALVYFVSAPF---GPNRSAPNDVPCLLPQOEYITHFVSEQAPTMGDALL 474
QY 475 HYLDPDTHRNLFGEFKLYPEGEMTCVPNSSGGTGQPTLPINGVFVSVWSRFLKPKVGTA 534
DB 475 HYVDPDTNRNLGFEKLYPGGYLTCVPNGVAGAGPQQLPLNGVFLVFSWVSRYOLKPKVGTA 534
QY 535 GPA-CRLGIRR 544
DB 535 STARSRLGVRR 545

RESULT 5
US-07-696-454-3
; Sequence 3, Application US/07696454
; GENERAL INFORMATION:
; APPLICANT: Estes, Mary K.
; APPLICANT: Jiang, Xi
; APPLICANT: Graham, David Y.
; TITLE OF INVENTION: Methods and Reagents to Detect and
; TITLE OF INVENTION: Characterize Norwalk and Related Viruses.
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Patent Department, Fulbright & Jaworski
; CITY: Houston
; STATE: Texas
; COUNTRY: USA

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; ZIP: 77010-3095
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Wordperfect converted to DOS
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/696,454
; FILING DATE: 19910506
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Launer, Charlene A.
; REGISTRATION NUMBER: 33,035
; REFERENCE/DOCKET NUMBER: D-5179CIP-3
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (713) 651-3634
; TELEFAX: (713) 651-5246
; TELEX: Western Union 762829
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 530 amino acids
; TYPE: AMINO ACID
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-07-696-454-3
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Query Match 67.3%; Score 1950; DB 3; Length 530;
Best Local Similarity 67.0%; Pred. No. 2e-178;
Matches 366; Conservative 66; Mismatches 96; Indels 18; Gaps 7;

QY 1 MMASKDAPTNDGTSGAGQLVPEANTAEPISEMPVAGAAATAAGQVNMIDPWIMNY 60
DB 1 MMASKDATSSVDGASGAGQLVPEVNASDPLAMPVAGSSTAVATAGQVNPDPWIINNF 60

QY 61 VOAPGERTISPNNTPGDILFDLQGLPHLNPFLSHLAQYNGWGNMKVKVLLAGNAFTA 120
DB 61 VOAPGERTISPNNTPGDILFDLQGLPHLNPFLSHLAQYNGWGNMKVKVLLAGNAFTA 120

QY 121 GKIIISCIPIPGFAAONISIAQATMPHVIADRVLEPIEVPLEDVRNVLFNHND-NAPTM 179
DB 121 GKIIISCIPIPGFSHNLTAQATLPHVIADRVTLDPLEVPLEDVRNVLFNHNDNRNQTM 180

QY 180 RLVCMLYTLPLRASGSSGTDPFVIAGRVLTCPSPDFSEFLVPPNVEOKTKPESVNPPL 239
DB 181 RLVCMLYTLPLRTGGGTG--DSEFVAGRVMTCPSPDFNLFVPPVEQKTRFTPLNPL 238

QY 240 NTLNSRVPSLIKSMVSRDHQVQFQNGRVTLDSGLQGLTPTTSASQLCKIRGSVFHAN 299
DB 239 SSLSNSRAPLPISMGISPDNVQSVQFQNGRCTLGRLVGTTPVSLSHVAKIRGT---S 294

QY 300 GGNGYNLTLDGSPYHAFESPAPIGFPDLGECDDHMEASPTQFNTGDIKQINVKQESA 359
DB 295 NGTVINLTLDGTPPHFEGPAPIGFPDLGGCDWHIN---MTQFGHSSQTQYDVTTPDT 351

QY 360 FAPHLGTIOADGLSDVSVNTNMIKLGWSPVSDGHRGDVDPWVTPRYGSTLTAAQALAP 419
DB 352 FVPHLGSIQANGIG---SGNYVGVLSWISPPSPSGSQVDLWKIPNYGSSITEATHLAP 407

QY 420 PIYPGFGGAIVFFMDSFPIAHGTNGLSVPCPTIPQEFVTHFVNEQAPTREGAALHYLDP 479
DB 408 SVYPPGFGVLPVFMKMP---GPGAYNLPCLLPQEYISHLASEQAPTVEAALLHYVDP 464

QY 480 DTHRNLTGEPKLYPEGFWTCVPSNNGTGPQTLPIGVFVSVWVSREYQLKPYCTAGPA-C 538
DB 465 DTGRNLGEFKAYPDGLFTCPVNGASSGPQOLPIGVFVSVWVSREYQLKPYCTASSARG 524

QY 539 RLGIIR 544
DB 525 RLGLRR 530

RESULT 6
US-07-941-365C-3
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```
; Sequence 3, Application US/07941365C
; GENERAL INFORMATION:
; APPLICANT: Matson, David O
; APPLICANT: Estes, Mary K
; APPLICANT: Jiang, Xi
; APPLICANT: Graham, David Y
; TITLE OF INVENTION: Methods and Reagents to Detect and
; TITLE OF INVENTION: Characterize Norwalk and Related Viruses
; NUMBER OF SEQUENCES: 75
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fulbright & Jaworski Patent Dept
; STREET: 1301 McKinney, Suite 5100
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77010-3095
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/941,365C
; FILING DATE: 19920908
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Launer, Charlene A
; REGISTRATION NUMBER: 33,035
; REFERENCE/DOCKET NUMBER: D-5526
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 713-651-3634
; TELEFAX: 713-651-5246
; TELEX: Western Union 762829
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 530 amino acids
; TYPE: AMINO ACID
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-07-941-365C-3
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Query Match 67.3%; Score 1950; DB 3; Length 530;
Best Local Similarity 67.0%; Pred. No. 2e-178;
Matches 366; Conservative 66; Mismatches 96; Indels 18; Gaps 7;

QY 1 MMASKDAPTNDGTSGAGQLVPEANTAEPISEMPVAGAAATAAGQVNMIDPWIMNY 60
DB 1 MMASKDATSSVDGASGAGQLVPEVNASDPLAMPVAGSSTAVATAGQVNPDPWIINNF 60

QY 61 VOAPGERTISPNNTPGDILFDLQGLPHLNPFLSHLAQYNGWGNMKVKVLLAGNAFTA 120
DB 61 VOAPGERTISPNNTPGDILFDLQGLPHLNPFLSHLAQYNGWGNMKVKVLLAGNAFTA 120

QY 121 GKIIISCIPIPGFAAONISIAQATMPHVIADRVLEPIEVPLEDVRNVLFNHND-NAPTM 179
DB 121 GKIIISCIPIPGFSHNLTAQATLPHVIADRVTLDPLEVPLEDVRNVLFNHNDNRNQTM 180

QY 180 RLVCMLYTLPLRASGSSGTDPFVIAGRVLTCPSPDFSEFLVPPNVEOKTKPESVNPPL 239
DB 181 RLVCMLYTLPLRTGGGTG--DSEFVAGRVMTCPSPDFNLFVPPVEQKTRFTPLNPL 238

QY 240 NTLNSRVPSLIKSMVSRDHQVQFQNGRVTLDSGLQGLTPTTSASQLCKIRGSVFHAN 299
DB 239 SSLSNSRAPLPISMGISPDNVQSVQFQNGRCTLGRLVGTTPVSLSHVAKIRGT---S 294

QY 300 GGNGYNLTLDGSPYHAFESPAPIGFPDLGECDDHMEASPTQFNTGDIKQINVKQESA 359
DB 295 NGTVINLTLDGTPPHFEGPAPIGFPDLGGCDWHIN---MTQFGHSSQTQYDVTTPDT 351

QY 360 FAPHLGTIOADGLSDVSVNTNMIKLGWSPVSDGHRGDVDPWVTPRYGSTLTAAQALAP 419
DB 352 FVPHLGSIQANGIG---SGNYVGVLSWISPPSPSGSQVDLWKIPNYGSSITEATHLAP 407
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QY 420 PLYPGFGEAIVFMSDFPIAHGTNGLSVPCITPOEFVTHFVNEQAPTRGEAALLHYLDP 479
Db 408 SYTPPGFGEVLVFFMSKMP---GPGAYNLPCULLPQEIYISHLASEQAPTVGEAALLHYVDP 464
QY 480 DTHRNLGFEKLYPEGFMTCVPNSSCTGQTLDPINGVFEVFSVSRFYQLKPVGTAGPA-C 538
Db 465 DTGRNLGFEKATPDGFLTCVPNGASSGQQLDPINGVFEVFSVSRFYQLKPVGTASSARG 524
QY 539 RLGIIR 544
Db 525 RLGLRR 530
RESULT 7
US-07-941-365E-3
; Sequence 3, Application US/07941365E
; GENERAL INFORMATION:
; APPLICANT: Matson, David O
; APPLICANT: Estes, Mary K
; APPLICANT: Jiang, Xi
; APPLICANT: Graham, David Y
; TITLE OF INVENTION: Methods and Reagents to Detect and
; TITLE OF INVENTION: Characterize Norwalk and Related Viruses
; NUMBER OF SEQUENCES: 82
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fulbright & Jaworski Patent Dept
; STREET: 1301 McKinney, Suite 5100
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77010-3095
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/941.365E
; FILING DATE:
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Launer, Charlene A
; REGISTRATION NUMBER: 33,035
; REFERENCE/DOCKET NUMBER: D-5526
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 713-651-3634
; TELEFAX: 713-651-5246
; TELEX: Western Union 762829
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 530 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-07-941-365E-3
Query Match 67.3%; Score 1950; DB 3; Length 530;
Best Local Similarity 67.0%; Pred. No. 2e-178;
Matches 366; Conservative 66; Mismatches 96; Indels 18; Gaps 7;
QY 1 MMASKDAPTNMDGTSGAGQLVPEANTAEPISEMPVAGATAAATAGQVNMIDPWIMNNY 60
Db 1 MMASKDATSSVDGASGAGQLVPEVNASDPLAMDVPAGSSTAVATAGVNPIDPWIINF 60
QY 61 VOAPQGEFTISNPTPGDILDLQGLPHLNPFLSHLAQMYNGWGNMKVYKVLLAGNAFTA 120
Db 61 VOAPQGEFTISNPTPGDILDLQGLPHLNPFLSHLAQMYNGWGNMKVYKVLLAGNAFTA 120
QY 121 GKIIITSCIPPGFAAONISTAQATMPHVIADVRVLEPVEDVRLVFNHND-NAPTM 179
Db 121 GKIIIVSCIPPGFNHNLTAQATLPHVIADVRTLDPIEVPLEDVRNVLFNHNDNRQQTM 180
QY 180 RLVCMLYTPLRASGSSSGTDPEVIAGRVLTCPSPDFSLFLVPPNVEQTKPFSVPNLPL 239

Db 181 RLVCMLYTPLRTGGTG--DSFVAVAGRVMTCPSPDFNFLFLVPPTVEQKTRPTLPNLPL 238
QY 240 NTLNSRVSPLIKSMVSRDHHGOMVOFONGRVTLDGLOGCTTPTTSASOLCKIRGSVFHAN 299
Db 239 SSLNSRDLPLTSSMGLSPDNVOSVONGRCTLDRGLVGTTPVLSHVAKIRGT-----S 294
QY 300 GNGYNLTLDGSPYHAFESPAPIGFDPDLCEDCDHMEASPTTQNTGDVIKQINVKOESA 359
Db 295 NGTVINLTLDGTFFHPFEGPAPIGFDPDLCGGCDHNLN---MTQFGHSSQTOYDVTTPDT 351
QY 360 FAPHLCTIOADGLSDSVNTNMIAKLGWVSPVSDGHRGVDVDPWVPIRYGTLTFAAQLAP 419
Db 352 FVPHLGSIOANGIG----SGNYVGVLSWISPPSHPSQVDLWKIPNYGSSITEATHLAP 407
QY 420 PLYPGFGEAIVFMSDFPIAHGTNGLSVPCITPOEFVTHFVNEQAPTRGEAALLHYLDP 479
Db 408 SYTPPGFGEVLVFFMSKMP---GPGAYNLPCULLPQEIYISHLASEQAPTVGEAALLHYVDP 464
QY 480 DTHRNLGFEKLYPEGFMTCVPNSSCTGQTLDPINGVFEVFSVSRFYQLKPVGTAGPA-C 538
Db 465 DTGRNLGFEKATPDGFLTCVPNGASSGQQLDPINGVFEVFSVSRFYQLKPVGTASSARG 524
QY 539 RLGIIR 544
Db 525 RLGLRR 530
RESULT 8
US-08-386-365-3
; Sequence 3, Application US/08386365
; GENERAL INFORMATION:
; APPLICANT: Matson, David O
; APPLICANT: Estes, Mary K
; APPLICANT: Jiang, Xi
; APPLICANT: Graham, David Y
; TITLE OF INVENTION: Methods and Reagents to Detect and
; TITLE OF INVENTION: Characterize Norwalk and Related Viruses
; NUMBER OF SEQUENCES: 82
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fulbright & Jaworski Patent Dept
; STREET: 1301 McKinney, Suite 5100
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77010-3095
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/386,365
; FILING DATE:
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Launer, Charlene A
; REGISTRATION NUMBER: 33,035
; REFERENCE/DOCKET NUMBER: D-5526
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 713-651-3634
; TELEFAX: 713-651-5246
; TELEX: Western Union 762829
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 530 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-386-365-3
Query Match 67.3%; Score 1950; DB 7; Length 530;
Best Local Similarity 67.0%; Pred. No. 2e-178;

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Matches 366; Conservative 66; Mismatches 96; Indels 18; Gaps 7;
Qy 1 MMASKDAPTNDCTSGAGQLVPEANTAEPLSMPEVAGAAATAAGOVNMDPWIMNNY 60
Db 1 MMASKDATSSVDGASGAGQLVPEVNASDPLAMDPAVAGSTAVATAGQVNPIDPWIIINF 60
Qy 61 VQAPQGEFTISPNNTPGDIILFDLQGLPHLNPFLSHLAQMYNGWGNMKVKVLLAGNAFTA 120
Db 61 VQAPQGEFTISPNNTPGDIILFDLQGLPHLNPFLSHLAQMYNGWGNMKVKVLLAGNAFTA 120
Qy 121 GKIIISCIIPPGFAAONISIAQATMPPHVIADRVLEIEVPLEDVRNVLFINND-NAPTM 179
Db 121 GKIIIVSCIPPGFGSHNLIAQATLFPHVIADRVTLDPLEVPLEDVRNVLFINNDRNQOTM 180
Qy 180 RLVCMLYTPLRASGSSGTDPEVIAGRVLTCPSPDFSLFLVPPNVEOKTKPESVNPULP 239
Db 181 RLVCMLYTPLRGTGGTG--DSFVAGRVMTCPSPDFNLFVLPVPEVOKTRPFTLPNLP 238
Qy 240 NTLNSRVPSLIKSMVSRDHQWQFQNGRVTLDGOLGTTPTSASQLCKIRGSVFHAN 299
Db 239 SSLNSRAPLPISSMGISPDNVQSVQFQNGRCTLDGRLVGTTPVSLSHVAKIRGT---S 294
Qy 300 GGNGYNTLDCSPHAFESPAPIGFDPDLGCDWHMEASPTQFNTGDIKQINVKQESA 359
Db 295 NGTVINLTLDGTFPHFPEGPAPIGFDPDLGGCDWHN---MTQFGHSSQTQYDVTTPDT 351
Qy 360 FAPHLGTIQADGLSDSVSVNTNMIAKLGVSPVSDGHRGDVDPWIPRYGSGTILTEAAQLAP 419
Db 352 FVPHLGSIOANGIG---SGNYGVLSWISPPSHPSGQVDLWKIPNYGSSITEATHLAP 407
Qy 420 PIYPGFGAEIVFFMSDFPIAHGTNGLSVPCPTIQEFVTHFVNEQAPTRGEAALLHYLDP 479
Db 408 SVYPPGFEVLVFFMSKMP---GPGAYNLPCLLPQEIYISHLASEQAPTVGEAALLHYVDP 464
Qy 480 DTHRLNLFKLYPEGFMTCPVNSSGTGPOTLPINGVFVSVWSRYQLKPVGTAGPA-C 538
Db 465 DTGRNLGEFKAYPDGFLTCVPGNASSGQQLPINGVFVSVWSRYQLKPVGTASSARG 524
Qy 539 RLGIIR 544
Db 525 RLGLRR 530

RESULT 9
US-08-486-049-3
; Sequence 3, Application US/08486049
; GENERAL INFORMATION:
; APPLICANT: Estes, Mary K
; APPLICANT: Jiang, Xi
; APPLICANT: Graham, David Y
; TITLE OF INVENTION: Methods and Reagents to Detect and
; TITLE OF INVENTION: Characterize Norwalk and Related Viruses
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSER: Fulbright & Jaworski L.L.P.
; STREET: 801 Pennsylvania Ave., N.W.
; CITY: Washington, D.C.
; STATE:
; COUNTRY: USA
; ZIP: 20004
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/486,049
; FILING DATE: June 7, 1995
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Davis, Peter
; REGISTRATION NUMBER: 36,119
; REFERENCE/DOCKET NUMBER: 311.023

```

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; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-662-0200
; TELEFAX: 202-662-4643
; TELEX:
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 530 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-486-049-3
Query Match 67.3%; Score 1950; DB 8; Length 530;
Best Local Similarity 67.0%; Pred. No. 2e-176;
Matches 366; Conservative 66; Mismatches 96; Indels 18; Gaps 7;
Qy 1 MMASKDAPTNDCTSGAGQLVPEANTAEPLSMPEVAGAAATAAGOVNMDPWIMNNY 60
Db 1 MMASKDATSSVDGASGAGQLVPEVNASDPLAMDPAVAGSTAVATAGQVNPIDPWIIINF 60
Qy 61 VQAPQGEFTISPNNTPGDIILFDLQGLPHLNPFLSHLAQMYNGWGNMKVKVLLAGNAFTA 120
Db 61 VQAPQGEFTISPNNTPGDIILFDLQGLPHLNPFLSHLAQMYNGWGNMKVKVLLAGNAFTA 120
Qy 121 GKIIISCIIPPGFAAONISIAQATMPPHVIADRVLEIEVPLEDVRNVLFINND-NAPTM 179
Db 121 GKIIIVSCIPPGFGSHNLIAQATLFPHVIADRVTLDPLEVPLEDVRNVLFINNDRNQOTM 180
Qy 180 RLVCMLYTPLRASGSSGTDPEVIAGRVLTCPSPDFSLFLVPPNVEOKTKPESVNPULP 239
Db 181 RLVCMLYTPLRGTGGTG--DSFVAGRVMTCPSPDFNLFVLPVPEVOKTRPFTLPNLP 238
Qy 240 NTLNSRVPSLIKSMVSRDHQWQFQNGRVTLDGOLGTTPTSASQLCKIRGSVFHAN 299
Db 239 SSLNSRAPLPISSMGISPDNVQSVQFQNGRCTLDGRLVGTTPVSLSHVAKIRGT---S 294
Qy 300 GGNGYNTLDCSPHAFESPAPIGFDPDLGCDWHMEASPTQFNTGDIKQINVKQESA 359
Db 295 NGTVINLTLDGTFPHFPEGPAPIGFDPDLGGCDWHN---MTQFGHSSQTQYDVTTPDT 351
Qy 360 FAPHLGTIQADGLSDSVSVNTNMIAKLGVSPVSDGHRGDVDPWIPRYGSGTILTEAAQLAP 419
Db 352 FVPHLGSIOANGIG---SGNYGVLSWISPPSHPSGQVDLWKIPNYGSSITEATHLAP 407
Qy 420 PIYPGFGAEIVFFMSDFPIAHGTNGLSVPCPTIQEFVTHFVNEQAPTRGEAALLHYLDP 479
Db 408 SVYPPGFEVLVFFMSKMP---GPGAYNLPCLLPQEIYISHLASEQAPTVGEAALLHYVDP 464
Qy 480 DTHRLNLFKLYPEGFMTCPVNSSGTGPOTLPINGVFVSVWSRYQLKPVGTAGPA-C 538
Db 465 DTGRNLGEFKAYPDGFLTCVPGNASSGQQLPINGVFVSVWSRYQLKPVGTASSARG 524
Qy 539 RLGIIR 544
Db 525 RLGLRR 530

RESULT 10
US-09-926-799-2
; Sequence 2, Application US/09926799
; GENERAL INFORMATION:
; APPLICANT: TAKEDA, NAOKAZU
; APPLICANT: NATORI, KATSURO
; APPLICANT: MIYAMURA, TATSUO
; APPLICANT: KAMATA, KUNIO
; APPLICANT: SATO, TOSHINORI
; APPLICANT: SATO, SEIYA
; TITLE OF INVENTION: Detection kit for SRSV
; FILE REFERENCE: 217039US0XPC
; CURRENT APPLICATION NUMBER: US/09/926,799
; CURRENT FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: JP 11175928
; PRIOR FILING DATE: 1999-06-22

```


; PRIOR APPLICATION NUMBER: JP 11-175928
; PRIOR FILING DATE: 1999-06-22
; NUMBER OF SEQ ID NOS: 34
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 530
; TYPE: PRT
; ORGANISM: ARTIFICIAL SEQUENCE
; FEATURE:
; OTHER INFORMATION: SYNTHETIC PEPTIDE
US-09-926-799-2

Query Match 66.9%; Score 1938; DB 23; Length 530;
Best Local Similarity 67.0%; Pred. No. 2.9e-177;
Matches 366; Conservative 63; Mismatches 99; Indels 18; Gaps 7;

Qy 1 MMASKDAPTNNNDGTSAGAGQLVPEANTAEPISEMEPVAGAAATAAGOVNMDPKIMNNY 60
Db 1 MMASKDAPTSSVDSAGAGQLVPEVNASDPLAMDVPAGSSTAVATAGQVNPIDPWIIINNF 60

Qy 61 VQAPGGEFTISPNNTPGDILFDLQGLPHLPFLSLHQAQMYNGWGNMKVKVLLAGNAFTA 120
Db 61 VQAPGGEFTISPNNTPGGDFDLSGLPHLPFLHLSQMYNGWGNMRVRIMLAGNAFTA 120

Qy 121 GKIIISCIPPGFAAQNISIAQATMPHPHVIADRVVLEPIEVPLEDVNRNLFHND-NAPTM 179
Db 121 GKIIIVSCIPPGFGSHNLTAQATLFPHPHVIADRVTLDPLEVPLEDVRNLFHNDNRNQTM 180

Qy 180 RLVCMLYTPLRASGSSGTDPEVIAGRVLTCPSPDPFSEFLFLVPPNVEOKTRPFSVPLNPL 239
Db 181 RLVCMLYTPLRGTGGTG--DSEFVAGRVMTCPSPDPNFLEFLVPPVEOKTRPFTLPNPL 238

Qy 240 NTLNSRVPSLIKSMWVRDQMGVQFONGRVTLTGQLOGTTPTSASOLCKIRGSVFHAN 299
Db 239 SSLNSRAPLPSGMIISPNDVQSVQFONGRCTLGRLVGTTPVSLSHVAKIRGT----S 294

Qy 300 GNGYVNLTELGOSPYHAFESAPITGFDLGECDHMEASPTQFNVTGNDVIKQINVKQESA 359
Db 295 NGTVNLTELDGTPHPHPEGPAPITGFDLGGCDHIN---MTQFGHSSQTQVDVDTTPT 351

Qy 360 FAPHLGTIQADGLSDSVYNTNMIKLGWSPVSDGHRGDDVPWIPRYGSTLTTEAAQALP 419
Db 352 FVPHLGSLQANGIG---SGNVIQVLSWSPSPHSGSQVDLWKIPNIGSSITEATHLAP 407

Qy 420 PIYPGGEAIVFFMSDFPIAHGTNGLSVPCPTIPOEFVTHFVNEQAATGEAALLHYLDP 479
Db 408 SVYPPGGEVLVFFMSKIP---GPCAYSLPCLLPQEIYSHLASEQAQTVGEAALLHYVDP 464

Qy 480 DTHRNMGFEKLYPEGFMTCPVNSSGTGPOTLPINGVVFVSVSRFYQLKPVGTAGPA-C 538
Db 465 DTGRTLGEFKAYPDGLTCVPNGASSGPQQLPINGVVFVSVSRFYQLKPVGTASSARG 524

Qy 539 RLGIIR 544
Db 525 RLGLRR 530

RESULT 11
US-09-926-799-7
; Sequence 7, Application US/09926799
; GENERAL INFORMATION:
; APPLICANT: TAKEDA, NAOKAZU
; APPLICANT: NATORI, RATSURO
; APPLICANT: MIYAMURA, TATSUO
; APPLICANT: KAMATA, KUNIO
; APPLICANT: SATO, TOSHINORI
; APPLICANT: SATO, SEIYA
; TITLE OF INVENTION: Detection kit for SRSV
; FILE REFERENCE: 217039USOXPT
; CURRENT APPLICATION NUMBER: US/09/926.799
; CURRENT FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: JP 11175928
; PRIOR FILING DATE: 1999-06-22

; PRIOR APPLICATION NUMBER: JP 11-175928
; PRIOR FILING DATE: 1999-06-22
; NUMBER OF SEQ ID NOS: 34
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 7
; LENGTH: 540
; TYPE: PRT
; ORGANISM: ARTIFICIAL SEQUENCE
; FEATURE:
; OTHER INFORMATION: SYNTHETIC PEPTIDE
US-09-926-799-7

Query Match 42.3%; Score 1225; DB 23; Length 540;
Best Local Similarity 46.7%; Pred. No. 2.2e-108;
Matches 261; Conservative 89; Mismatches 173; Indels 36; Gaps 14;

Qy 1 MMASKDAPTNNNDGTSAGAGQLVPEANTAEPISEMEPVAGAAATAAGOVNMDPKIMNNY 60
Db 1 MMASNDATPSNDGAAG---LVPESNN-EAMALEPVVGASLAAPVGTQNTIIDPWITRNF 56

Qy 61 VQAPGGEFTISPNNTPGDILFDLQGLPHLPFLSLHQAQMYNGWGNMKVKVLLAGNAFTA 120
Db 57 VQAPNGEFTVSPRNPGEILLVNLGLPELNPYLHLARMYNGYAGGMEVQVMLAGNAFTA 116

Qy 121 GKIIISCIPPGFAAQNISIAQATMPHPHVIADRVVLEPIEVPLEDVNRNLFH-NNDNAPTM 179
Db 117 GKIIIFAAVPPYFPVENLSPSQITMEPHVIDVRTLLEPVLPMPPDVRSITLHFHFKDEPKM 176

Qy 180 RLVCMLYTPLRASGSSGTDPEVIAGRVLTCPSPDPFSEFLFLVPPNVEOKTRPFSVPLNPL 239
Db 177 RLVAHLYTPLRNSG--SGDDVFTVSCRILTRPSPEFDTLYLPVPTVESKTKPTLPVLT 234

Qy 240 NTLNSRVPSLIKSMWVRDQMGVQFONGRVTLTGQLOGTTPTSASOLCKIRGSVFHAN 299
Db 235 GELNSRPLSLDEMTSPNESIVVQPNQGRVTLGDELLCTTQLOACNCTCSRGKVTGQV 294

Qy 300 GNGY----NLTELGOSPYHAFES-PAPITGFDL-GECDHMH-----BASPTQFNCTGD 347
Db 295 PSEQHMNLLEINLNGTQDPTDDVPAPLGVPDFAGEFVLSQRNRGESNPANRAHDAV 354

Qy 348 VIKQINVKQESAFAPHLGTIQAD--GLSDSVYNTNMIKLGWSPVSDGHRGDDVPWIP 405
Db 355 V-----ATVSDYTKPKGLVQIGTWNNDVNEQPTKFTPIG-LNEVANGHR--FEQMTLP 406

Qy 406 RYGSTLTTEAAQALPPIYPGGEAIVFFMSDFPIAHGTNGLSVPCPTIPOEFVTHFVNEQA 465
Db 407 RYSGALTLMNMLAPAVAPLPFGGERLLFFRSYVPLKGGFNPALDCSVPGQEWQHFQESA 466

Qy 466 PTRGEAALLHYLDPDTHRNMGFEKLYPEGFMTCPVNSSGTGPOTLPINGVVFVSVSRF 525
Db 467 PSLGDAVALRVYVNPDTGRVLFEEAKLHKGGFLTV--SSTSTGPPVVVPANGYFKFDSWVNF 524

Qy 526 YQLKPVGTAGPACRLGIIR 544
Db 525 YSLAPMGTGN-----GRRR 538

RESULT 12
US-08-273-257-5
; Sequence 5, Application US/08273257
; GENERAL INFORMATION:
; APPLICANT: LEW, Judy F.
; APPLICANT: GREEN, Kim Y.
; APPLICANT: VALDESUSO, Jose
; TITLE OF INVENTION: Calicivirus capsid genes and their uses
; NUMBER OF SEQUENCES: 36
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Townsend and Townsend Kourie and Crew
; STREET: Steuart Street Tower, One Market Plaza
; CITY: San Francisco
; STATE: California
; COUNTRY: US
; ZIP: 94105-1493

```

; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/273,257
; FILING DATE: 11-JUL-1994
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Bastian, Kevin L.
; REGISTRATION NUMBER: 34,774
; REFERENCE/DOCKET NUMBER: 15280-209
; REFERENCE/DOCKET NUMBER: DHHS Ref. No. E-163-94/0
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 543-9600
; TELEFAX: (415) 543-5043
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 548 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-273-257-5

```

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Query Match 40.9%; Score 1184.5; DB 6; Length 548;
Best Local Similarity 46.4%; Pred. No. 1.8e-104;
Matches 262; Conservative 79; Mismatches 181; Indels 43; Gaps 15;

QY 1 MMASKD-APTNMDGTSGAGQLVPEANTAEPISEMPVAGAATAAATAGVNNIDPWIMNN 59
DB 1 MKMASNDAPSNDGAACLVPEINN-EAMALDPVAGSAIAPLTQQQNIIDPWIMNN 55

QY 60 VYAPQGEFTISPNNTPGDILFDLQGLPHLPFLSHLAQMYNGWGNKVKVLLAGNAFT 119
DB 56 VYAPQGEFTISPNNTPGDILFDLQGLPHLPFLSHLAQMYNGWGNKVKVLLAGNAFT 115

QY 120 AGKIISICPPGFAAQNISIAQATMFPHVIAADVRLVLEPIEVLDPVLRVFNHNDNAPT- 178
DB 116 AGKIIFAAIPNFPIDNLSAAQITMCPHVIVDVRLVLEPIEVLDPVLRVFNHNDNAPT- 175

QY 179 MRLVCMLYTPLRASGSSGTDPEFVIAGRVLCPSDFSLFLVPPNVQKTKPFSPVNP 238
DB 176 LRLIAMLVTPLRANNSGDDVFTVSCRVLTRPSPDFSEFNLVPPVTSKTKPFTLPILT 233

QY 239 NLTLSNRVPSLIKSMVSRDHGMVQFQNGRVTLTGLOGTTPTSASOLCKIRGSVFHA 298
DB 234 ISEMSNRFPVPIESLHTSPTENIVVQCQNGRVTLTGELMGTTQLLPQICAFRGVLT 293

QY 299 NGG-----NGY---NLTELDSGPYHAFES-PAPIGFDDL-GECDWHMEASPT 340
DB 294 TSASDQADTPTPLRFNYWHIQLDNLNGTPYDPAEDIPGLGTPDFRGKV-----FGVA 348

QY 341 TQFNTGDTVIKQINVKQESA---FAPHLGTIOADGLSDVSNTNMIKLGWSPVSDG--H 395
DB 349 SQRPNDSTTRAHEAKVDITTAGRTFKLSLEITSDS-DFDQNOPTKF---TPVGVGVDN 404

QY 396 RGDVDPWIPRYGSTLTEAAQLAPPIYPGFGAEIVFMSDFPIAHGTNGLSVPTIQOE 455
DB 405 EAEFQWSLPDYSGQFTHNMNLAPAVAPNFPGEQLLFFRSQLPSSGGRSNGVLDCLVPOE 464

QY 456 VTHFVNEQAPTRGEAALHYLDPOTHRNGLGFEKLYPEGFMTCPVNSSGTGPTLPINGV 515
DB 465 WQHFQESAPAQTOVALRYVNPDTGRVLFKALHKLGFMTIAKN--GDSPTITVPNGY 522

QY 516 FVFSVWSRFYOLKPVGTAGPACRL 540
DB 523 RFESVWNPFYTLAPMGTGNGRRRI 547

```

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RESULT 13
US-09-926-799-6
; Sequence 6, Application US/09926799

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```

; GENERAL INFORMATION:
; APPLICANT: TAKEDA, NAKAZU
; APPLICANT: NATORI, KATSURO
; APPLICANT: MIYAMURA, TATSUO
; APPLICANT: KAMATA, KUNIO
; APPLICANT: SATO, TOSHINORI
; APPLICANT: SATO, SEIYA
; TITLE OF INVENTION: Detection kit for SRSV
; FILE REFERENCE: 217039US0XPCT
; CURRENT APPLICATION NUMBER: US/09/926,799
; CURRENT FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: JP 11175928
; PRIOR FILING DATE: 1999-06-22
; PRIOR APPLICATION NUMBER: JP 11-175928
; PRIOR FILING DATE: 1999-06-22
; NUMBER OF SEQ ID NOS: 34
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 548
; TYPE: PRT
; ORGANISM: ARTIFICIAL SEQUENCE
; FEATURE:
; OTHER INFORMATION: SYNTHETIC PEPTIDE
; US-09-926-799-6

```

```

Query Match 40.7%; Score 1178.5; DB 23; Length 548;
Best Local Similarity 45.7%; Pred. No. 6.8e-104;
Matches 258; Conservative 82; Mismatches 183; Indels 41; Gaps 14;

QY 1 MMASKD-APTNMDGTSGAGQLVPEANTAEPISEMPVAGAATAAATAGVNNIDPWIMNN 60
DB 1 MKMASNDAPSNDGAACLVPEINN-EAMALDPVAGSAIAPLTQQQNIIDPWIMNN 56

QY 61 VOAPQGEFTISPNNTPGDILFDLQGLPHLPFLSHLAQMYNGWGNKVKVLLAGNAFT 120
DB 57 VOAPQGEFTISPNNTPGDILFDLQGLPHLPFLSHLAQMYNGWGNKVKVLLAGNAFT 116

QY 121 GKIIISICPPGFAAQNISIAQATMFPHVIAADVRLVLEPIEVLDPVLRVFNHNDNAPT-M 179
DB 117 GKIIIFAAIPNFPIDNLSAAQITMCPHVIVDVRLVLEPIEVLDPVLRVFNHNDNAPT-M 176

QY 180 RLVCMLYTPLRASGSSGTDPEFVIAGRVLCPSDFSLFLVPPNVQKTKPFSPVNP 239
DB 177 LRLIAMLVTPLRANNSGDDVFTVSCRVLTRPSPDFSEFNLVPPVTSKTKPFTLPILT 234

QY 240 NLTLSNRVPSLIKSMVSRDHGMVQFQNGRVTLTGLOGTTPTSASOLCKIRGSVFHAN 299
DB 235 SEMSNRFPVPIESLHTSPTENIVVQCQNGRVTLTGELMGTTQLLPQICAFRGVLT 294

QY 300 GG-----NGY---NLTELDSGPYHAFES-PAPIGFDDL-GECDWHMEASPT 341
DB 295 SRASDQADTPTPLRFNYWHIQLDNLNGTPYDPAEDIPGLGTPDFRGKV-----FGVA 349

QY 342 TQFNTGDTVIKQINVKQESA---FAPHLGTIOADGLSDVSNTNMIKLGWSPVSDG--HR 396
DB 350 QRNLDSSTTRAHEAKVDITTAGRTFKLSLEITSDS-DFDQNOPTKF---TPVGIGVDNE 405

QY 397 RGDVDPWIPRYGSTLTEAAQLAPPIYPGFGAEIVFMSDFPIAHGTNGLSVPTIQOE 456
DB 406 EAEFQWSLPDYSGQFTHNMNLAPAVAPNFPGEQLLFFRSQLPSSGGRSNGVLDCLVPOE 465

QY 457 VTHFVNEQAPTRGEAALHYLDPOTHRNGLGFEKLYPEGFMTCPVNSSGTGPTLPINGV 516
DB 466 WQHFQESAPAQTOVALRYVNPDTGRVLFKALHKLGFMTIANN--GDSPTITVPNGY 523

QY 517 FVFSVWSRFYOLKPVGTAGPACRL 540
DB 524 RFESVWNPFYTLAPMGTGNGRRRI 547

```

```

RESULT 14
US-08-273-257-11
; Sequence 11, Application US/08273257

```

```

RESULT 15
US-09-926-799-8
; Sequence 8, Application US/09926799
; GENERAL INFORMATION:
; APPLICANT: TAKEDA, NAKAZU
; APPLICANT: NATORI, KATSURO
; APPLICANT: MIYAMURA, TATSUO
; APPLICANT: KAMAYA, KUNIO
; APPLICANT: SATO, TOSHIORI
; APPLICANT: SATO, SEIYA
; TITLE OF INVENTION: Detection kit for SRSV
; FILE REFERENCE: 217039USOXPCT
; CURRENT APPLICATION NUMBER: US/09/926,799
; CURRENT FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: JP 11175928
; PRIOR FILING DATE: 1999-06-22
; PRIOR APPLICATION NUMBER: JP 11-175928
; PRIOR FILING DATE: 1999-06-22
; NUMBER OF SEQ ID NOS: 34
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 8
; LENGTH: 535
; TYPE: PRT
; ORGANISM: ARTIFICIAL SEQUENCE
; FEATURE:
; OTHER INFORMATION: SYNTHETIC PEPTIDE
US-09-926-799-8

```

Query Match	40.6%	Score 1174.5	DB 23	Length 535
Best Local Similarity	45.0%	Pred. No. 1.6e-103		
Matches	251	Conservative 87	Mismatches 181	Indels 39
Gaps	13			
QY	1	MMASKADPTNMDGTSAGQLVPENATPESMPEPVAGATAAATAGOVNWDPIWNNY	60	
		: : : : :		
DB	1	MKMASNDAAPSNDGAAG---LVPEANN-ETMALEPVAGASIAAPLTGNNIIDPWIRLN	56	
		: : : : :		
QY	61	VQAPQGETTSPNNTPGDILLDLQGLPHLAPFLSHLAQMYGNWKNKVKVLLAGNAFTA	120	
		: : : : :		
DB	57	VQAPNGEFTVSPRNSPGDELUNELGPELANPYLAHLSRMVNYAGGVVLLAGNAFTA	116	
		: : : : :		
QY	121	GKIIISICPGFAAQNISIAQATMFPHIVADVRLIEPVEDVRNVLFH-NNDNAPTM	179	
		: : : : :		
DB	117	GKLVFAAVPHIFPLENISPGQITMFPHVIIDVRTLPEVLLPLPDRVNFHFHYNQNEPRM	176	
		: : : : :		
QY	180	RLVCMLTPLRASGSSGTDPFVJAGRVLTCPSPDFSLFLVPPNVBQKTKPPSVPNLPL	239	
		: : : : :		
DB	177	RLVAMLTPLRSNG--SGDDVETVSCRVLTRPSPDFNVLPVPTLESKTKPFTLPILT	234	
		: : : : :		
QY	240	NTLSNSRVPSLIKSMVSRDHQWQFQNGRVTLDGOLGTTPTTSASOLCKIRGSVFHAN	299	
		: : : : :		
DB	235	GELTNSRFPDPIDELYTPNESLVQPNGRCALDGLQGTQLLTPAITSFRGRINQKV	294	
		: : : : :		
QY	300	GGNCY----NLTELDGSPYH-AFESPAIGPDD-----LGCBDHMEASPTTQFNIG	346	
		: : : : :		
DB	295	SGENHVNMVQNTINGTFPDDTGDVPAPLGPDPFSGKLVGLVSORD-HDRNAC-----RSH	348	
		: : : : :		
QY	347	DVTKQINVKQESAFAPHLGTTQADGLSDVSNTNMIAKLGWSPVSDGHRGDVDPWPIR	406	
		: : : : :		
DB	349	DAVATN---SAKETPKLGAIGCTWEEDDVHINQTKF---TPVGVLFEWEGFNQWTLPN	402	
		: : : : :		
QY	407	YGSTLTEAAQLAPPIYPGFGCEAIVFMSDFPIAHGTNGLSVPCPTIPEQFVTHFVNQAP	466	
		: : : : :		
DB	403	YSGALTLMGLAPVAPTEFGEOLTFPSRSHIPKGGVADPVIDCLLPQEWIOHUVQESAP	462	
		: : : : :		

Qy 467 TRGEALLHYLDPTHNLGEFKLYPEGEWTCVPNSSTGTPQLPINGVFEVSVWSREY 526
Db 463 SQSDVALIRFTNPDGRVLFPAKLHRSYITVA--NTGSRPIVVYPANGYFRFTWVNOFY 520
Qy 527 QLKPVGTAGPACRLGIRR 544
Db 521 SLAPWGTGN-----GRRR 533

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